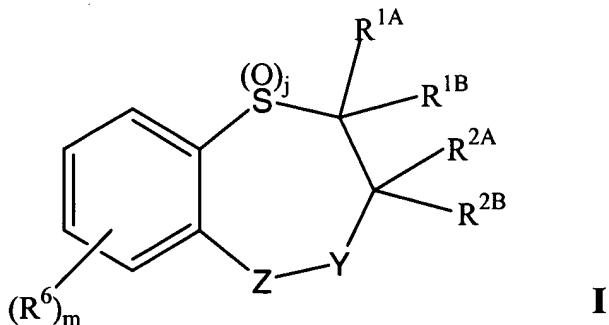


This Listing of Claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A compound of Formula I:



wherein:

j is 0, 1 or 2; and

m is 0, 1, 2, 3 or 4; and

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl and aralkyl; or

R^{2A} and R^{2B} together with the carbon atom to which they are attached form a C₃₋₁₀ cycloalkyl group; and

one of Z and Y is NR³ and the other of Z and Y is CHR⁴;

wherein R³ and R⁴ are independently selected from the group consisting of hydrogen, acyl, thioacetyl, and R⁵; and

wherein R⁵ is selected from the group consisting of alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; -OR⁹; -SR⁹; -S(O)R⁹; -SO₂R⁹; and -SO₃R⁹;

wherein the R⁵ alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocycl; and quaternary heterocycl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl;

alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}$ A^- ; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may be further substituted with one or more radicals selected from the group consisting of $-CN$; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $\underline{-N^+R^7R^8R^9A^-}$; $\underline{-N^+R^7R^8R^9A^-}$; $-P(O)R^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $\underline{-N^+R^7R^8A^-}$; $\underline{N^+R^7R^8A^-}$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 and R^{10} are independently selected from R^W and carboxyalkylheterocycle;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-CN$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl;

carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

~~wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and~~

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

one or more R⁶ radicals are independently selected from the group consisting of R⁵, hydrogen; halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -S(O)2R¹³; -SO₃R¹³; -S⁺R¹³R¹⁴A⁻; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -NR¹⁴C(O)R¹³; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -OR¹⁸; -S(O)NR¹³R¹⁴; -NR¹³R¹⁸; -NR¹⁸OR¹⁴; -N⁺R¹³R¹⁴R¹⁵A⁻; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R⁶ alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; -CN; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R

10 ; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}^+\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^-$; $-\text{S}^+\text{R}^9\text{R}^{10}\text{A}^-$; and carbohydrate residue; and

wherein the R^6 quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; $-\text{CN}$; $-\text{NO}_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-\text{OR}^{13}$; $-\text{NR}^{13}\text{R}^{14}$; $-\text{SR}^{13}$; $-\text{S}(\text{O})\text{R}^{13}$; $-\text{SO}_2\text{R}^{13}$; $-\text{SO}_3\text{R}^{13}$; $-\text{NR}^{13}\text{OR}^{14}$; $-\text{NR}^{13}\text{NR}^{14}\text{R}^{15}$; $-\text{CO}_2\text{R}^{13}$; OM-OM ; $-\text{SO}_2\text{OM}$; $-\text{SO}_2\text{NR}^{13}\text{R}^{14}$; $-\text{C}(\text{O})\text{NR}^{13}\text{R}^{14}$; $-\text{C}(\text{O})\text{OM}$; $-\text{COR}^{13}$; $-\text{P}(\text{O})\text{R}^{13}\text{R}^{14}$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; $-\text{P}(\text{OR}^{13})\text{OR}^{14}$; $-\text{S}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; and carbohydrate residue; and

wherein the R^6 radicals comprising carbon optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^{13}-$; $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^{13}\text{A}^-$; $-\text{PR}^{13}-$; $-\text{P}(\text{O})\text{R}^{13}-$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^9-$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^9\text{A}^-$; $-\text{PR}^9-$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{A}^-$; or $-\text{P}(\text{O})\text{R}^9-$; and

wherein R^{18} is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl; and

wherein the R^{18} alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; $-\text{CN}$; $-\text{NO}_2$; $-\text{OR}^9$; $-\text{NR}^9\text{R}^{10}$; $-\text{N}^+\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^-$; $-\text{SR}^9$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; $-\text{CONR}^9\text{R}^{10}$; $-\text{SO}_2\text{OM}$; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}(\text{OR}^{13})\text{OR}^{14}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; and $-\text{C}(\text{O})\text{OM}$; or

a pharmaceutically acceptable salt or solvate thereof;
provided that at least one of R³, R⁴ and R⁶ is R⁵; and
provided that at least one of the following conditions is satisfied:
(a) the R⁵ moiety possesses an overall positive charge;
(b) the R⁵ moiety comprises a quaternary ammonium group or a quaternary amine salt;
(c) the R⁵ moiety comprises a phosphonic acid group or at least two carboxyl groups; or
(d) the R⁵ moiety comprises a polyethylene glycol group having a molecular weight of at least 1000.

2. (Currently Amended) A compound of Claim 1 wherein R⁵ is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; ~~-N⁺R⁷R⁸R⁹A~~; -N⁺R⁷R⁸R⁹A; -P(O)R⁷R⁸; -P⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of

the R⁵ aryl optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹ and R¹⁰ are independently selected from R^W and carboxyalkylheterocycle;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary

heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

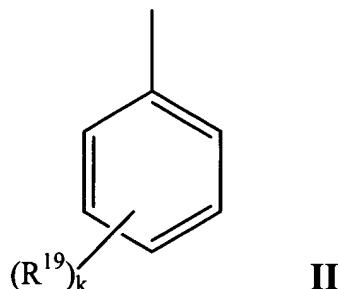
wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

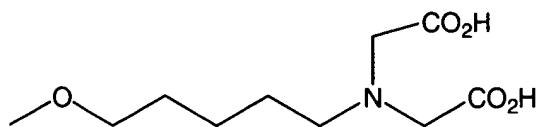
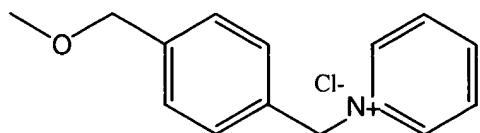
3. (Currently Amended) A compound of claim 2 wherein R⁵ is:

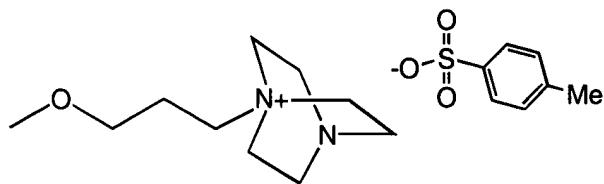
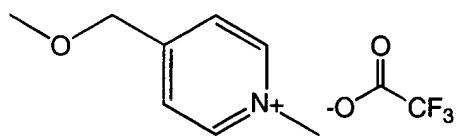
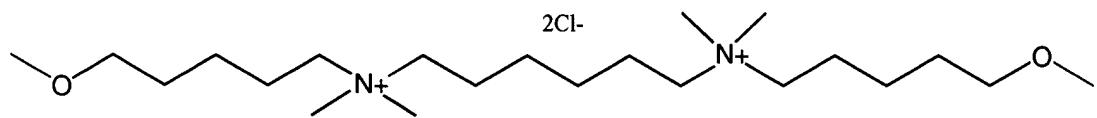
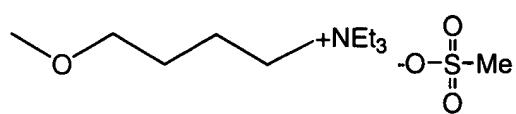
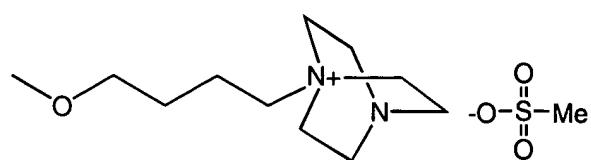
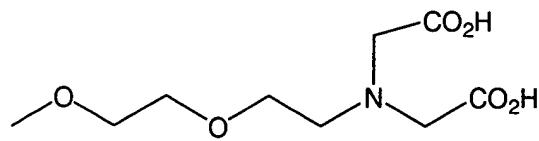


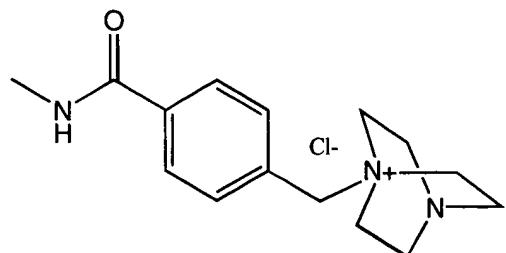
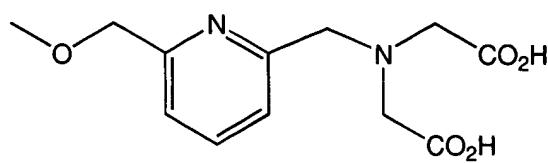
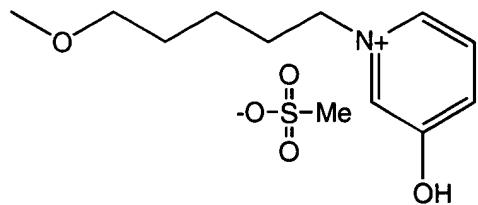
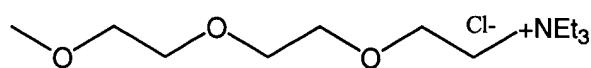
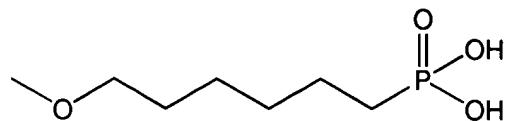
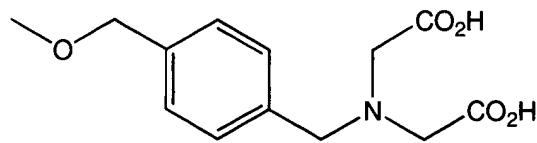
wherein

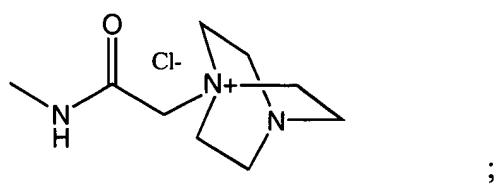
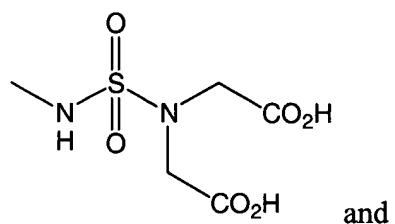
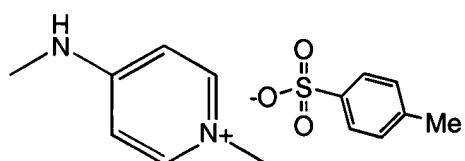
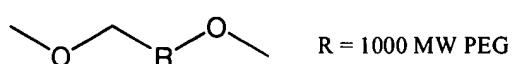
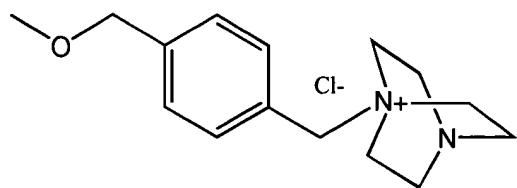
k is 0, 1, 2, 3 or 4; and

one or more R^{19} are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and









wherein the R¹⁹ alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A-; -N⁺R⁷R⁸R⁹A-; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the R¹⁹ alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹ and R¹⁰ are independently selected from R^W and carboxyalkylheterocycle;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary

heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

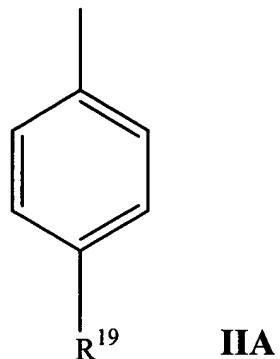
wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -

SO₂⁻; -SO₂⁻; -S⁺R⁹A⁻; -PR⁹₂⁻; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹⁻; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

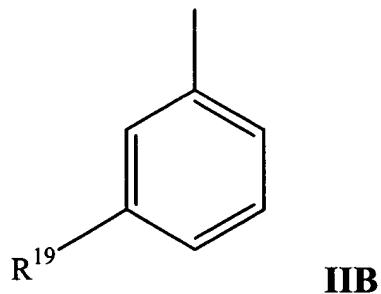
wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

4. (original) A compound of claim 3 wherein R⁵ is:



wherein R¹⁹ is as defined in Claim 3.

5. (original) A compound of claim 3 wherein R⁵ is:



wherein R¹⁹ is as defined in Claim 3.

6. (original) A compound of claim 3 wherein:

R^3 is R^5 ; and

R^4 is selected from the group consisting of hydrogen and alkyl.

7. (original) A compound of claim 3 wherein:

R^3 is selected from the group consisting of hydrogen and alkyl; and

R^4 is R^5 .

8. (Currently Amended) A compound of claim 3 wherein:

R^3 is R^5 ; and

R^4 is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and $-OR^9$;

wherein the R^4 alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $-N^+R^7R^8R^9A^-$; $-N^+R^7R^8R^9A^-$; $-P(O)R^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-CN$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-OR^9$; $-NR^9R^{10}$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; and $-CONR^9R^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with $N^+R^9R^{11}R^{12}A^-$ and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

9. (Currently Amended) A compound of claim 3 wherein:

R^3 is selected from the group consisting of hydrogen; +alkyl ; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and $-\text{OR}^9$;

wherein the R^3 alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; $-\text{CN}$; $-\text{NO}_2$; +alkyl ; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-\text{OR}^{13}$; $-\text{NR}^{13}\text{R}^{14}$; $-\text{SR}^{13}$; $-\text{S(O)R}^{13}$; $-\text{SO}_2\text{R}^{13}$; $-\text{SO}_3\text{R}^{13}$; $-\text{NR}^{13}\text{OR}^{14}$; $-\text{NR}^{13}\text{NR}^{14}\text{R}^{15}$; $-\text{CO}_2\text{R}^{13}$; $-\text{OM}$; $-\text{SO}_2\text{OM}$; $-\text{SO}_2\text{NR}^{13}\text{R}^{14}$; $-\text{C(O)NR}^{13}\text{R}^{14}$; $-\text{C(O)OM}$; $-\text{COR}^{13}$; $-\text{NR}^{13}\text{C(O)R}^{14}$; $-\text{NR}^{13}\text{C(O)NR}^{14}\text{R}^{15}$; $-\text{NR}^{13}\text{CO}_2\text{R}^{14}$; $-\text{OC(O)R}^{13}$; $-\text{OC(O)NR}^{13}\text{R}^{14}$; $-\text{NR}^{13}\text{SOR}^{14}$; $-\text{NR}^{13}\text{SO}_2\text{R}^{14}$; $-\text{NR}^{13}\text{SONR}^{14}\text{R}^{15}$; $-\text{NR}^{13}\text{SO}_2\text{NR}^{14}\text{R}^{15}$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P(O)R}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; $-\text{P}(\text{OR}^{13})\text{OR}^{14}$; $-\text{S}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; and $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may be further substituted with one or more radicals selected from the group consisting of $-\text{CN}$; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-\text{OR}^7$; $-\text{NR}^7\text{R}^8$; $-\text{SR}^7$; $-\text{S(O)R}^7$; $-\text{SO}_2\text{R}^7$; $-\text{SO}_3\text{R}^7$; $-\text{CO}_2\text{R}^7$; $-\text{CONR}^7\text{R}^8$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{P(O)R}^7\text{R}^8$; $-\text{P}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; and $-\text{P}(\text{O})(\text{OR}^7)\text{OR}^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^7-$; $-\text{N}^+\text{R}^7\text{R}^8\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^7\text{A}^-$; $-\text{PR}^7-$; $-\text{P}(\text{O})\text{R}^7-$; $-\text{P}^+\text{R}^7\text{R}^8\text{A}^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl;

guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R⁴ is R⁵.

10. (Currently Amended) A compound of claim 3 wherein:

R¹⁹ is independently selected from the group consisting of -OR¹³, -NR¹³R¹⁴, -NR¹³C(O)R¹⁴, -OC(O)NR¹³R¹⁴, and -NR¹³SO₂R¹⁴, and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $\text{N}^+ \text{R}^9 \text{R}^{10} \text{A}^-$
 $\text{N}^+ \text{R}^9 \text{R}^{10} \text{A}^-$, and

wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, $-\text{SR}^9$, $-\text{S}(\text{O})\text{R}^9$, $-\text{S}(\text{O})_2\text{R}^9$, $-\text{S}(\text{O})_3\text{R}^9$, $-\text{NR}^9\text{R}^{10}$, $-\text{N}^+ \text{R}^9 \text{R}^{11} \text{R}^{12} \text{A}^-$, $-\text{CONR}^9 \text{R}^{10}$, and $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocycl; and

wherein R^{11} and R^{12} are independently alkyl; and

wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

11. (Previously amended) A compound of claim 3 wherein:

R^{19} is independently selected from the group consisting of $-\text{OR}^{13}$, $-\text{NR}^{13} \text{R}^{14}$, $-\text{NR}^{13} \text{C}(\text{O}) \text{R}^{14}$, $-\text{OC}(\text{O}) \text{NR}^{13} \text{R}^{14}$, and $-\text{NR}^{13} \text{SO}_2 \text{R}^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of polyether, aryl, quaternary heterocycl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, and alkylheterocyclalkyl,

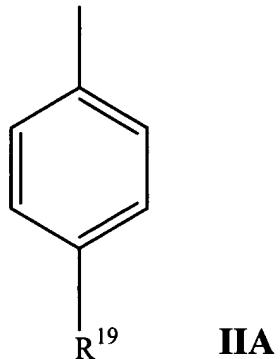
wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, $-\text{SR}^9$, $-\text{S}(\text{O})\text{R}^9$, $-\text{S}(\text{O})_2\text{R}^9$, $-\text{S}(\text{O})_3\text{R}^9$, $-\text{NR}^9\text{R}^{10}$, $-\text{N}^+ \text{R}^9 \text{R}^{11} \text{R}^{12} \text{A}^-$, $-\text{CONR}^9 \text{R}^{10}$, and $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocycl; and

wherein R^{11} and R^{12} are independently alkyl; and

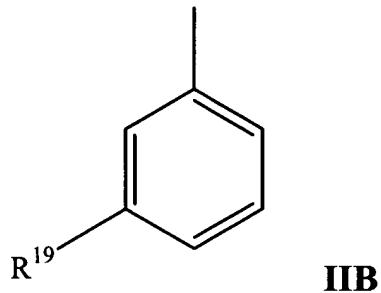
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

12. (original) A compound of claim 10 wherein R^5 is:



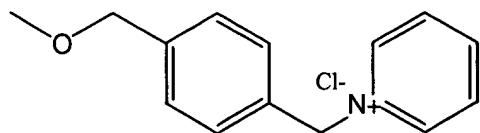
wherein R^{19} is as defined in Claim 10.

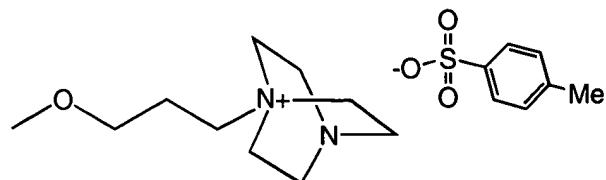
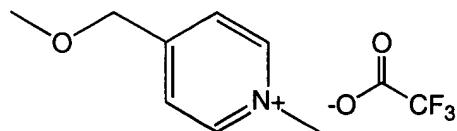
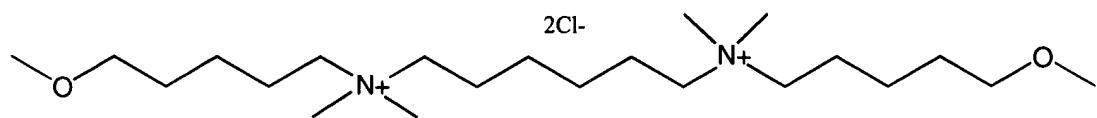
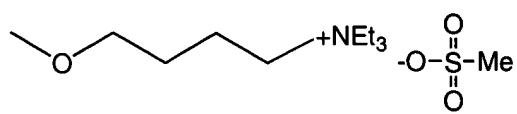
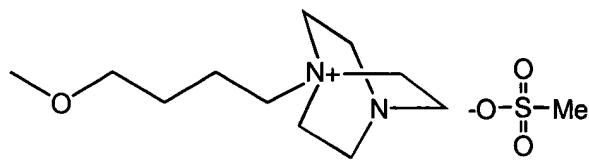
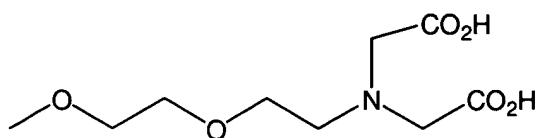
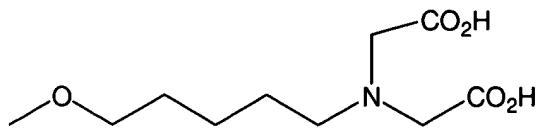
13. (original) A compound of claim 10 wherein R^5 is:

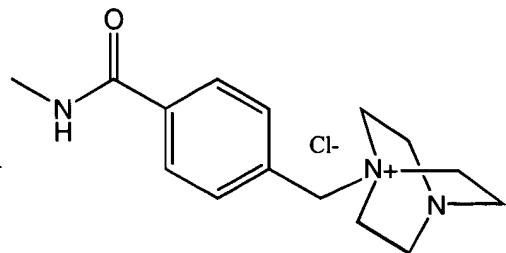
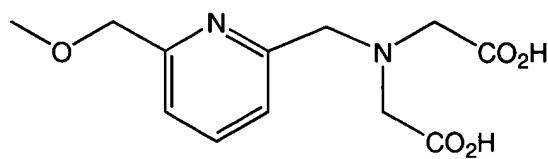
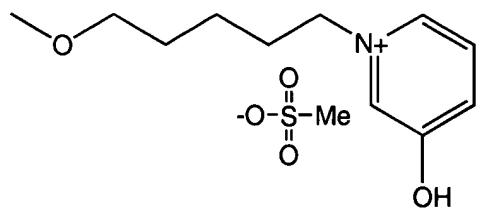
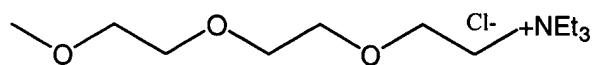
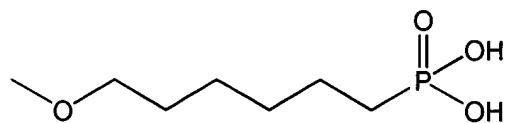
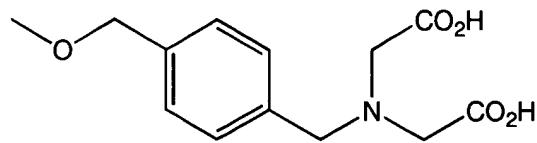


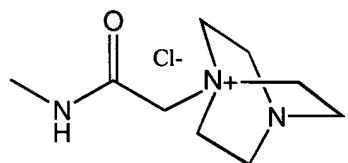
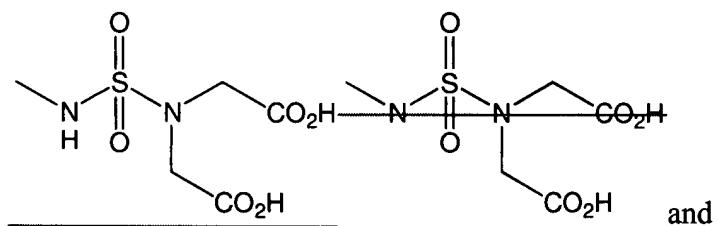
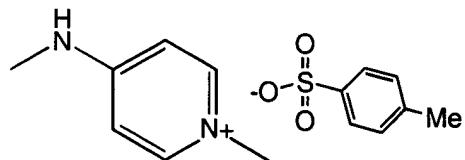
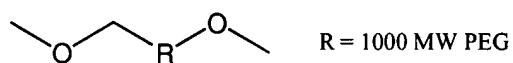
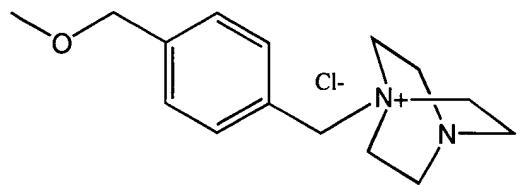
wherein R^{19} is as defined in Claim 10.

14. (Currently Amended) A compound of claim 3 wherein R^{19} is selected from the group consisting of:









15. (original) A compound of claim 3 wherein:

j is 2;

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

16. (original) A compound of claim 3 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and
 R^{2A} and R^{2B} are independently selected from alkyl.

17. (original) A compound of claim 3 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

18. (original) A compound of claim 3 wherein j is 1 or 2.

19. (original) A compound of claim 3 wherein j is 2.

20. (original) A compound of claim 3 wherein R^{1A} and R^{1B} are hydrogen.

21. (original) A compound of claim 3 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

22. (original) A compound of claim 3 wherein R^{2A} and R^{2B} are independently selected from the group consisting C_{1-6} alkyl.

23. (original) A compound of claim 3 wherein R^{2A} and R^{2B} are the same alkyl.

24. (original) A compound of claim 3 wherein R^{2A} and R^{2B} are each n-butyl.

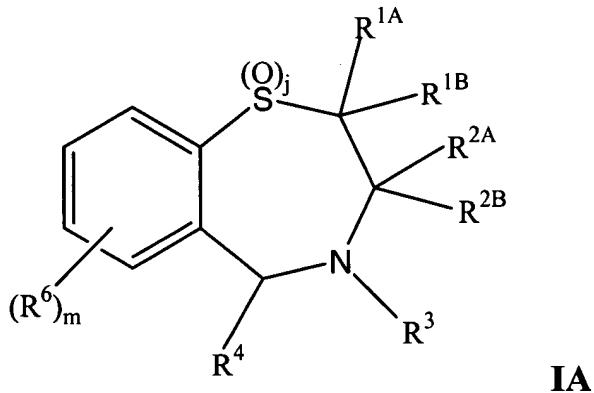
25. (original) A compound of claim 3 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

26. (original) A compound of claim 3 wherein one or more R^6 are independently selected from methoxy and dimethylamino.

27. (original) A compound of claim 3 wherein
j is 1 or 2;
 R^{1A} and R^{1B} are hydrogen;
 R^{2A} and R^{2B} are n-butyl; and
one or more R^6 are independently selected from methoxy and dimethylamino.

28. (original) A compound of claim 3 wherein
j is 1 or 2;
 R^{1A} and R^{1B} are hydrogen;
one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and
one or more R^6 are independently selected from methoxy and dimethylamino.

29. (Currently Amended) A compound of claim 1 corresponding to Formula IA:



wherein:

j is 0, 1 or 2; and

m is 0, 1, 2, 3 or 4; and

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen, alkyl, alkenyl, alkynyl,

cycloalkyl, cycloalkylalkyl, aryl, and aralkyl; or

R^{2A} and R^{2B} together with the carbon atom to which they are attached form a C_{3-7} cycloalkyl group; and

R^3 and R^4 are independently selected from the group consisting of hydrogen, acyl, thioacyl, and R^5 ; and

wherein R^5 is selected from the group consisting of alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; $-OR^9$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; and $-SO_3R^9$;

wherein the R^5 alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; and quaternary heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; $-CN$; $-NO_2$; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may be further substituted with one or more radicals selected from the group consisting of $-CN$; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $\underline{-N^+R^7R^8R^9A^-}$; $\underline{-N^+R^7R^8R^9A^-}$; $-P(O)R^7R^8$; $-P^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 and R^{10} are independently selected from R^W and ~~carboxyalkylheterocycle~~;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl;

heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; $-\text{OR}^{16}$; $-\text{NR}^9\text{R}^{10}$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{R}^w\text{A}^-$; $-\text{SR}^{16}$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^{16}$; $-\text{CO}_2\text{R}^{16}$; $-\text{CONR}^9\text{R}^{10}$; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{R}^{11}\text{A}^-$; $-\text{S}^+\text{R}^9\text{R}^{10}\text{A}^-$; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with $\text{N}^+\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^-$; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^9-$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^9\text{A}^-$; $-\text{PR}^9-$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{P}(\text{O})\text{R}^9-$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

one or more R^6 radicals are independently selected from the group consisting of R^5 , hydrogen; halogen; $-\text{CN}$; $-\text{NO}_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy; $-\text{OR}^{13}$; $-\text{NR}^{13}\text{R}^{14}$; $-\text{SR}^{13}$; $-\text{S}(\text{O})\text{R}^{13}$; $-\text{S}(\text{O})_2\text{R}^{13}$; $-\text{SO}_3\text{R}^{13}$; $-\text{S}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; $-\text{NR}^{13}$; $-\text{OR}^{14}$; $-\text{NR}^{13}\text{NR}^{14}\text{R}^{15}$; $-\text{CO}_2\text{R}^{13}$; ~~OM~~ $-\text{OM}$; $-\text{SO}_2\text{OM}$; $-\text{SO}_2\text{NR}^{13}\text{R}^{14}$; $-\text{NR}^{14}\text{C}(\text{O})\text{R}^{13}$; $-\text{C}(\text{O})\text{NR}^{13}\text{R}^{14}$; $-\text{C}(\text{O})\text{OM}$; $-\text{COR}^{13}$; $-\text{OR}^{18}$; $-\text{S}(\text{O})\text{NR}^{13}\text{R}^{14}$; $-\text{NR}^{13}\text{R}^{18}$; $-\text{NR}^{18}\text{OR}^{14}$; $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}(\text{O})\text{R}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R^6 alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; -CN; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹¹R¹²A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue; and

wherein the R^6 quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -P(O)R¹³R¹⁴; -PR¹³R¹⁴; P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and carbohydrate residue; and

wherein the R^6 radicals comprising carbon optionally may have one or more carbons replaced by -O-; -NR¹³-; -N⁺R¹³R¹⁴A⁻; -S-; -SO-; -SO₂-; -S⁺R¹³A⁻; -PR¹³-; -P(O)R¹³-; -PR¹³R¹⁴; -P⁺R¹³R¹⁴A⁻; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; or -P(O)R⁹-; and

wherein R^{18} is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclalkoxy carbonyl; and

wherein the R^{18} alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclalkoxy carbonyl radicals optionally may be substituted with one or more radicals

selected from the group consisting of halogen; -CN; NO₂; -OR⁹; -NR⁹R¹⁰; -N⁺R⁹R¹¹R¹²A⁻; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; -CONR⁹R¹⁰; -SO₂OM; -SO₂NR⁹R¹⁰; -PR⁹R¹⁰; -P(OR¹³)OR¹⁴; -PO(OR¹⁶)OR¹⁷; and -C(O)OM; or

a pharmaceutically acceptable salt or solvate thereof;

provided that at least one of R³, R⁴ and R⁶ is R⁵; and

provided that the R⁵ alkyl, cycloalkyl, aryl, heterocyclyl, and -OR⁹ radicals are not substituted with -O(CH₂)₁₋₄N⁺R'R''R'''A⁻ wherein R', R'' and R''' are independently selected from hydrogen and alkyl; and

provided that at least one of the following conditions is satisfied:

(a) the R⁵ moiety possesses an overall positive charge; and/or

(b) the R⁵ moiety comprises a quaternary ammonium group or a quaternary amine salt;

and/or

(c) the R⁵ moiety comprises at least two carboxy groups.

30. (Currently Amended) A compound of Claim 29 wherein R⁵ is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl;

heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A-; -N⁺R⁷R⁸R⁹A-; -P(O)R⁷R⁸; -P⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁵ aryl optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹ and R¹⁰ are independently selected from R^W and carboxyalkylheterocycle;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

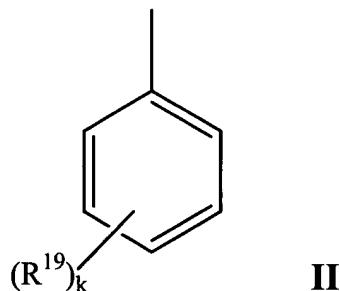
wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

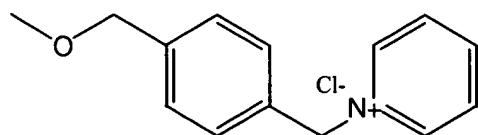
31. (Currently Amended) A compound of claim 30 wherein R⁵ is:

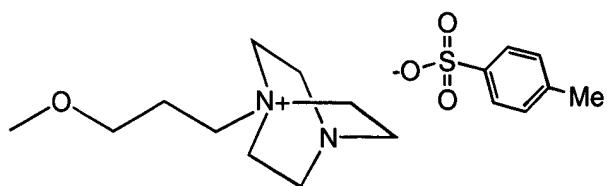
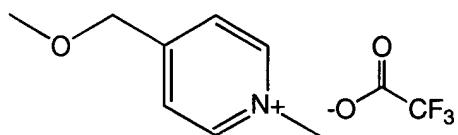
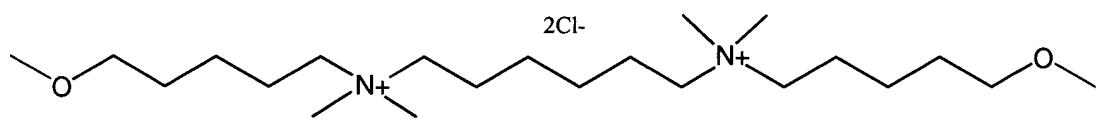
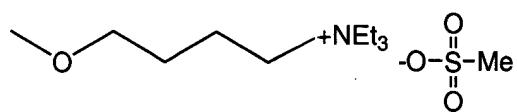
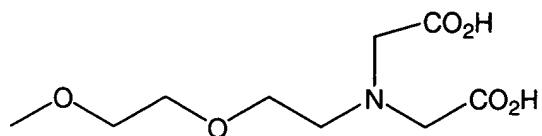
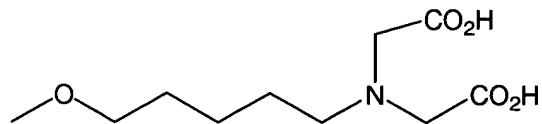


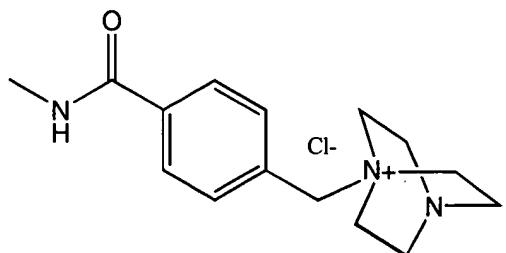
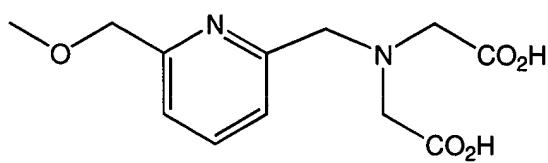
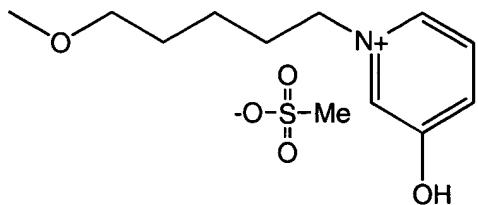
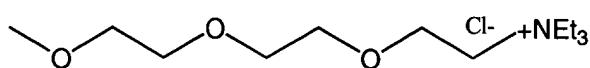
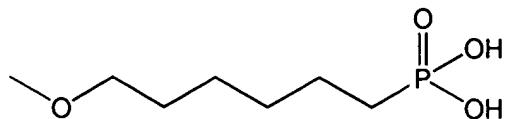
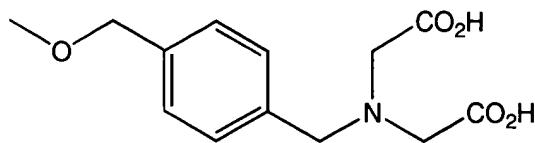
wherein

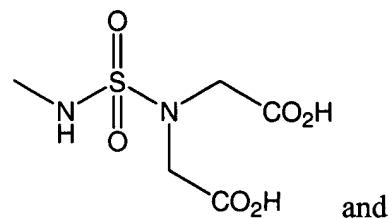
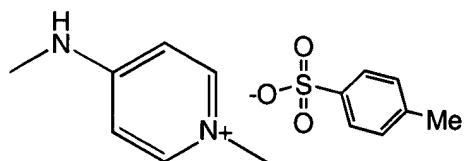
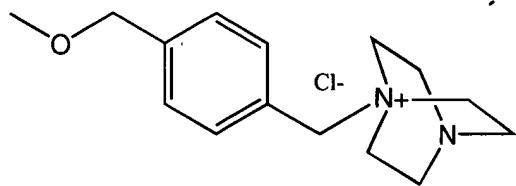
k is 0, 1, 2, 3 or 4; and

one or more R¹⁹ are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and

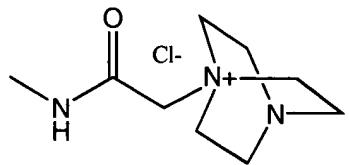








and



;

wherein the R^{19} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -

SO_3R^7 ; $-\text{CO}_2\text{R}^7$; $-\text{CONR}^7\text{R}^8$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{P}(\text{O})\text{R}^7\text{R}^8$; $-\text{PR}^7\text{R}^8$; $-\text{P}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; and $-\text{P}(\text{O})(\text{OR}^7)\text{OR}^8$; and

wherein the R^{19} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^7$; $-\text{N}^+\text{R}^7\text{R}^8\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2$; $-\text{S}^+\text{R}^7\text{A}^-$; $-\text{PR}^7$; $-\text{P}(\text{O})\text{R}^7$; $-\text{P}^+\text{R}^7\text{R}^8\text{A}^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 and R^{10} are independently selected from R^w -and carboxyalkylheterocycle;

wherein R^w is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-\text{CN}$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-\text{OR}^9$; $-\text{NR}^9\text{R}^{10}$; $-\text{SR}^9$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; and $-\text{CONR}^9\text{R}^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

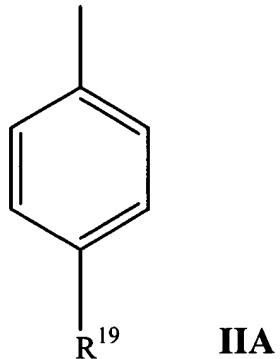
~~wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹⁰R¹¹A⁻; and~~

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

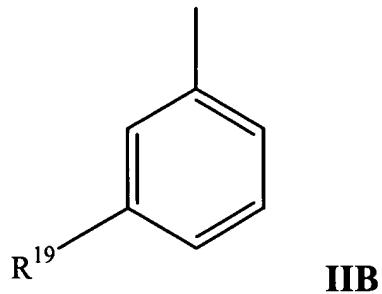
wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

32. (original) A compound of claim 31 wherein R⁵ is:



wherein R¹⁹ is as defined in Claim 31.

33. (original) A compound of claim 31 wherein R⁵ is:



wherein R¹⁹ is as defined in Claim 31.

34. (original) A compound of claim 31 wherein:

R³ is R⁵; and

R⁴ is selected from the group consisting of hydrogen and alkyl.

35. (original) A compound of claim 31 wherein:

R³ is selected from the group consisting of hydrogen and alkyl; and

R^4 is R^5 .

36. (Currently Amended) A compound of claim 31 wherein:

R^3 is R^5 ; and

R^4 is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and $-OR^9$;

wherein the R^4 alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; -OM; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy, alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $\underline{-N^+R^7R^8R^9A^-}$; $\underline{-N^+R^7R^8R^9A^-}$; $-P(O)R^7R^8$; $-P^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹, R¹⁰, and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group

consisting of halogen; -CN, alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidiny; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl; polyether, aryl, quaternary heterocycl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹⁴R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

37. (Currently Amended) A compound of claim 31 wherein:

R³ is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocycl; acyl, thioacyl, and -OR⁹;

wherein the R³ alkyl; cycloalkyl; aryl; heterocycl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO

$2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may be further substituted with one or more radicals selected from the group consisting of $-CN$; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $\underline{-N^+R^7R^8R^9A^-}$; $\underline{-N^+R^7R^8R^9A^-}$; $-P(O)R^7R^8$; $-P^7R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-CN$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-OR^9$; $-NR^9R^{10}$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; and $-CONR^9R^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary

heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R⁴ is R⁵.

38. (Currently Amended) A compound of claim 31 wherein:

R¹⁹ is independently selected from the group consisting of -OR¹³, -NR¹³R¹⁴, -NR¹³C(O)R¹⁴, -OC(O)NR¹³R¹⁴, and -NR¹³SO₂R¹⁴, and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocycl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl,

wherein alkyl optionally has one or more carbons replaced by O or N⁺R⁹R¹⁰A⁻ N⁺R⁹R¹⁰A⁻, and

wherein R¹³, R¹⁴, and R¹⁵ are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, -SR⁹, -S(O)R⁹, -S(O)₂R⁹, -S(O)₃R⁹, -NR⁹R¹⁰, -N⁺R⁹R¹¹R¹²A⁻, -CONR⁹R¹⁰, and -PO(OR¹⁶)OR¹⁷, and

wherein R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocycl; and

wherein R¹¹ and R¹² are independently alkyl; and

wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

39. (Previously amended) A compound of claim 31 wherein:

R^{19} is independently selected from the group consisting of $-OR^{13}$, $-NR^{13}R^{14}$, $-NR^{13}C(O)R^{14}$, $-OC(O)NR^{13}R^{14}$, and $-NR^{13}SO_2R^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, and alkylheterocyclylalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $N^+R^9R^{10}A^-$ $N^+R^9R^{10}A^-$, and

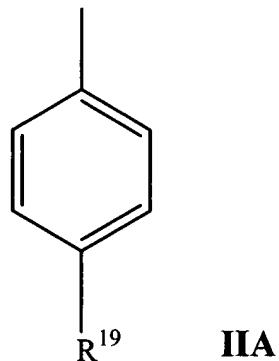
wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclylalkyl, $-SR^9$, $-S(O)R^9$, $-S(O)_2R^9$, $-S(O)_3R^9$, $-NR^9R^{10}$, $-N^+R^9R^{11}R^{12}A^-$, $-CONR^9R^{10}$, and $-PO(OR^{16})OR^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclylalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R^{11} and R^{12} are independently alkyl; and

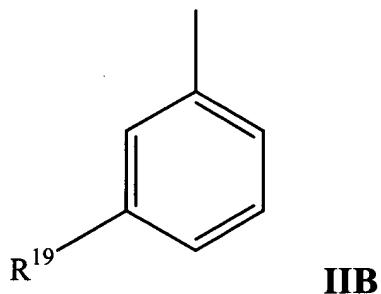
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

40. (original) A compound of claim 38 wherein R^5 is:



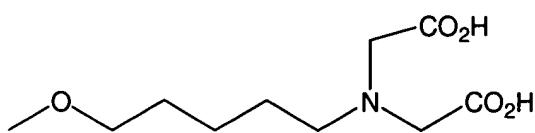
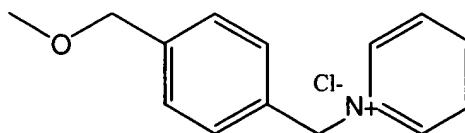
wherein R¹⁹ is as defined in Claim 38.

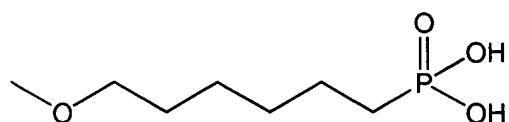
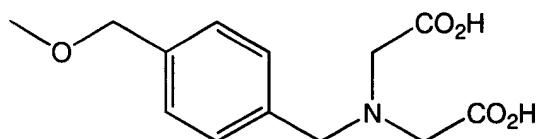
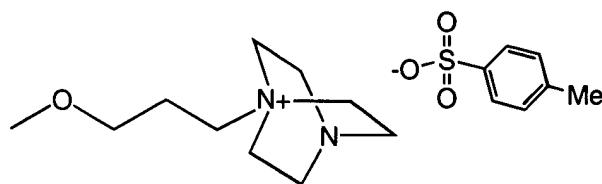
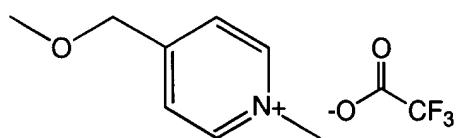
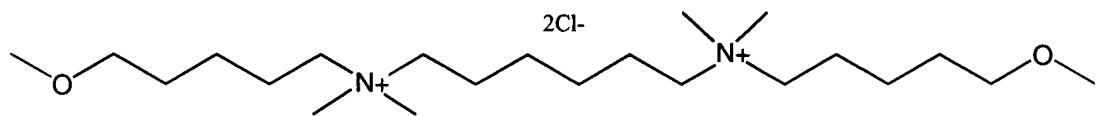
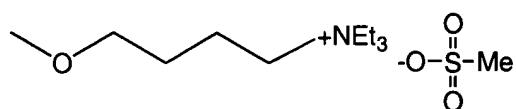
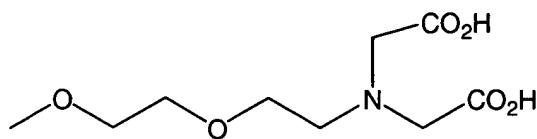
41. (original) A compound of claim 38 wherein R⁵ is:

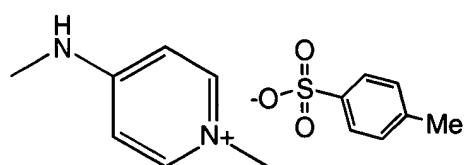
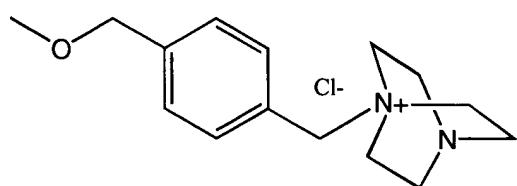
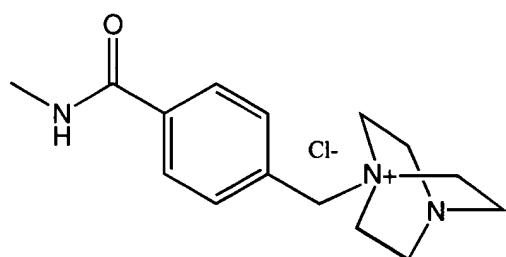
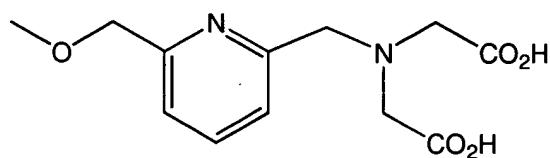
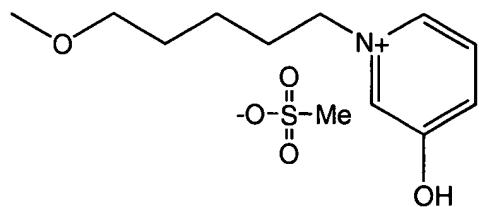
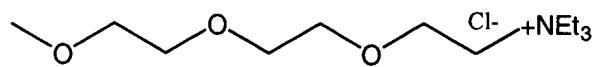


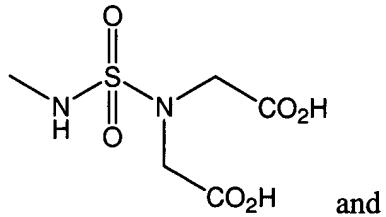
wherein R¹⁹ is as defined in Claim 38.

42. (Currently Amended) A compound of claim 31 wherein R¹⁹ is selected from the group consisting of:

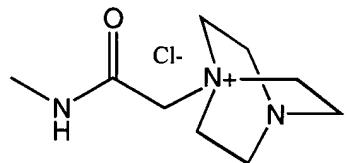








and



43. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

44. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from alkyl.

45. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

46. (original) A compound of claim 38 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R^3 is R^5 ; and
 R^4 is selected from hydrogen and alkyl.

47. (original) A compound of claim 38 wherein:

j is 2;
 R^{1A} and R^{1B} are hydrogen;
 R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;
 R^3 is selected from from hydrogen and alkyl; and
 R^4 is R^5 .

48. (original) A compound of claim 38 wherein j is 1 or 2.

49. (original) A compound of claim 38 wherein j is 2.

50. (original) A compound of claim 38 wherein R^{1A} and R^{1B} are hydrogen.

51. (original) A compound of claim 38 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

52. (original) A compound of claim 38 wherein R^{2A} and R^{2B} are independently selected from the group consisting C_{1-6} alkyl.

53. (original) A compound of claim 38 wherein R^{2A} and R^{2B} are the same alkyl.

54. (original) A compound of claim 38 wherein R^{2A} and R^{2B} are each n-butyl.

55. (original) A compound of claim 38 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

56. (original) A compound of claim 38 wherein one or more R⁶ are independently selected from methoxy and dimethylamino.

57. (original) A compound of claim 38 wherein
j is 1 or 2;
R^{1A} and R^{1B} are hydrogen;
R^{2A} and R^{2B} are n-butyl; and
one or more R⁶ are independently selected from methoxy and dimethylamino.

58. (original) A compound of claim 38 wherein
j is 1 or 2;
R^{1A} and R^{1B} are hydrogen;
one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and
one or more R⁶ are independently selected from methoxy and dimethylamino.

59. (original) A compound of claim 42 wherein:
j is 2;
R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and
R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

60. (original) A compound of claim 42 wherein:
j is 2;
R^{1A} and R^{1B} are hydrogen; and
R^{2A} and R^{2B} are independently selected from alkyl.

61. (original) A compound of claim 42 wherein:
j is 2;
R^{1A} and R^{1B} are hydrogen; and
R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

62. (original) A compound of claim 42 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R^3 is R^5 ; and

R^4 is selected from hydrogen and alkyl.

63. (original) A compound of claim 42 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R^3 is selected from from hydrogen and alkyl; and

R^4 is R^5 .

64. (original) A compound of claim 42 wherein j is 1 or 2.

65. (original) A compound of claim 42 wherein j is 2.

66. (original) A compound of claim 42 wherein R^{1A} and R^{1B} are hydrogen.

67. (original) A compound of claim 42 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

68. (original) A compound of claim 42 wherein R^{2A} and R^{2B} are independently selected from the group consisting C_{1-6} alkyl.

69. (original) A compound of claim 42 wherein R^{2A} and R^{2B} are the same alkyl.

70. (original) A compound of claim 42 wherein R^{2A} and R^{2B} are each n-butyl.

71. (original) A compound of claim 42 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

72. (original) A compound of claim 42 wherein one or more R⁶ are independently selected from methoxy and dimethylamino.

73. (original) A compound of claim 42 wherein

j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

74. (original) A compound of claim 42 wherein

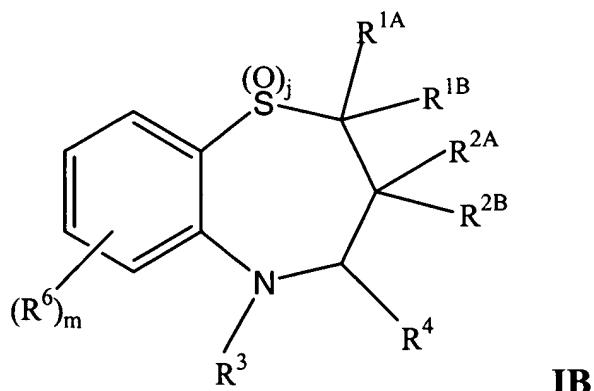
j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

75. (Currently Amended) A compound of claim 1 corresponding to Formula IB:



wherein:

j is 0, 1 or 2; and

m is 0, 1, 2, 3 or 4; and

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl, and aralkyl; or

R^{2A} and R^{2B} together with the carbon atom to which they are attached form a C_{3-7} cycloalkyl group; and

R^3 and R^4 are independently selected from the group consisting of hydrogen, acyl, thioacyl and R^5 ; and

wherein R^5 is selected from the group consisting of alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; $-OR^9$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; and $-SO_3R^9$;

wherein the R^5 alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; and quaternary heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; $-CN$; $-NO_2$; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}$ A^- ; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may be further substituted with one or more radicals selected from the group consisting of $-CN$; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $\underline{-N^+R^7R^8R^9A^-}$; $\underline{-N^+R^7R^8R^9A^-}$; $-P(O)R^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 radical optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹ and R¹⁰ are independently selected from R^W and ~~carboxyalkylheterocycle~~;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN, alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

~~wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹⁰R¹¹A⁻ and~~

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

one or more R⁶ radicals are independently selected from the group consisting of R⁵, hydrogen; halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether;

acyloxy; $-\text{OR}^{13}$; $-\text{NR}^{13}\text{R}^{14}$; $-\text{SR}^{13}$; $-\text{S}(\text{O})\text{R}^{13}$; $-\text{S}(\text{O})_2\text{R}^{13}$; $-\text{SO}_3\text{R}^{13}$; $-\text{S}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; $-\text{NR}^{13}$
 OR^{14} ; $-\text{NR}^{13}\text{NR}^{14}\text{R}^{15}$; $-\text{CO}_2\text{R}^{13}$; $-\text{OM}$; $-\text{SO}_2\text{OM}$; $-\text{SO}_2\text{NR}^{13}\text{R}^{14}$; $-\text{NR}^{14}\text{C}(\text{O})\text{R}^{13}$; $-\text{C}(\text{O})\text{NR}^{13}\text{R}^{14}$; $-\text{C}(\text{O})\text{OM}$; $-\text{COR}^{13}$; $-\text{OR}^{18}$; $-\text{S}(\text{O})\text{NR}^{13}\text{R}^{14}$; $-\text{NR}^{13}\text{R}^{18}$; $-\text{NR}^{18}\text{OR}^{14}$; $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}(\text{O})\text{R}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R^6 alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; $-\text{CN}$; $-\text{OR}^{16}$; $-\text{NR}^9\text{R}^{10}$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{R}^w\text{A}^-$; $-\text{SR}^{16}$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^{16}$; $-\text{CO}_2\text{R}^{16}$; $-\text{CONR}^9\text{R}^{10}$; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}^+\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^-$; $-\text{S}^+\text{R}^9\text{R}^{10}\text{A}^-$; and carbohydrate residue; and

wherein the R^6 quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; $-\text{CN}$; $-\text{NO}_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-\text{OR}^{13}$; $-\text{NR}^{13}\text{R}^{14}$; $-\text{SR}^{13}$; $-\text{S}(\text{O})\text{R}^{13}$; $-\text{SO}_2\text{R}^{13}$; $-\text{SO}_3\text{R}^{13}$; $-\text{NR}^{14}$; $-\text{NR}^{13}\text{NR}^{14}\text{R}^{15}$; $-\text{CO}_2\text{R}^{13}$; ~~OM~~OM; $-\text{SO}_2\text{OM}$; $-\text{SO}_2\text{NR}^{13}\text{R}^{14}$; $-\text{C}(\text{O})\text{NR}^{13}\text{R}^{14}$; $-\text{C}(\text{O})\text{OM}$; $-\text{COR}^{13}$; $-\text{P}(\text{O})\text{R}^{13}\text{R}^{14}$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; $-\text{P}(\text{OR}^{13})\text{OR}^{14}$; $-\text{S}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; and carbohydrate residue; and

wherein the R^6 radicals comprising carbon optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^{13}-$; $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^{13}\text{A}^-$; $-\text{PR}^{13}-$; $-\text{P}(\text{O})\text{R}^{13}-$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{A}^-$; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^9-$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^9\text{A}^-$; $-\text{PR}^9-$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{A}^-$; or $-\text{P}(\text{O})\text{R}^9-$; and

wherein R^{18} is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxycarbonyl; arylalkoxycarbonyl; and heterocyclylalkoxycarbonyl; and

wherein the R^{18} alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxycarbonyl; arylalkoxycarbonyl; and heterocyclylalkoxycarbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; $-CN$; $-NO_2$; $-OR^9$; $-NR^9R^{10}$; $-N^+R^9R^{11}R^{12}A^-$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; $-CONR^9R^{10}$; $-SO_2OM$; $-SO_2NR^9R^{10}$; $-PR^9R^{10}$; $-P(OR^{13})OR^{14}$; $-PO(OR^{16})OR^{17}$; and $-C(O)OM$; or

a pharmaceutically acceptable salt or solvate thereof;

provided that at least one of R^3 , R^4 and R^6 is R^5 ; and

provided that the R^5 alkyl, cycloalkyl, aryl, and heterocyclyl, and $-OR^9$ radicals are not substituted with $-O(CH_2)_{1-4}N^+R'R''R'''A^-$ wherein R' , R'' and R''' are independently selected from hydrogen and alkyl; and

provided that at least one of the following conditions is satisfied:

(a) the R^5 moiety possesses an overall positive charge;

(b) the R^5 moiety comprises a quaternary ammonium group or a quaternary amine salt;

and

(c) the R^5 moiety comprises at least two carboxy groups.

76. (Currently Amended) A compound of Claim 75 wherein R^5 is aryl substituted with one or more radicals independently selected from the group consisting of halogen; $-CN$; $-NO_2$; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; -

$\text{NR}^{13}\text{SO}_2\text{NR}^{14}\text{R}^{15}$; $-\text{PR}^{13}\text{R}^{14}$; $-\text{P}(\text{O})\text{R}^{13}\text{R}^{14}$; $-\text{P}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; $-\text{P}(\text{OR}^{13})\text{OR}^{14}$; $-\text{S}^+\text{R}^{13}\text{R}^{14}$
 A^- ; and $-\text{N}^+\text{R}^{13}\text{R}^{14}\text{R}^{15}\text{A}^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-\text{OR}^7$; $-\text{NR}^7\text{R}^8$; $-\text{SR}^7$; $-\text{S}(\text{O})\text{R}^7$; $-\text{SO}_2\text{R}^7$; $-\text{SO}_3\text{R}^7$; $-\text{CO}_2\text{R}^7$; $-\text{CONR}^7\text{R}^8$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{P}(\text{O})\text{R}^7\text{R}^8$; $-\text{P}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; and $-\text{P}(\text{O})(\text{OR}^7)\text{OR}^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^5 aryl optionally may have one or more carbons replaced by -O-; $-\text{NR}^7$; $-\text{N}^+\text{R}^7\text{R}^8\text{A}^-$; -S-; -SO-; -SO₂-; $-\text{S}^+\text{R}^7\text{A}^-$; $-\text{PR}^7$; $-\text{P}(\text{O})\text{R}^7$; $-\text{P}^+\text{R}^7\text{R}^8\text{A}^-$; or phenylene;

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl;

wherein R^9 and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein R^w is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-\text{OR}^9$; $-\text{NR}^9\text{R}^{10}$; $-\text{SR}^9$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; and $-\text{CONR}^9\text{R}^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

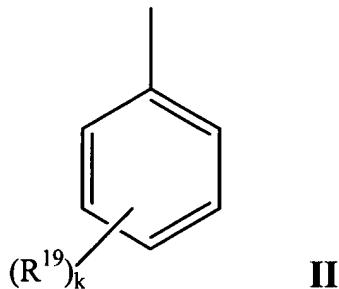
wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether

radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

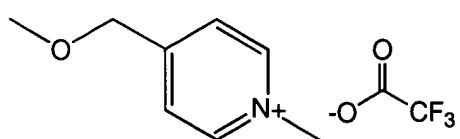
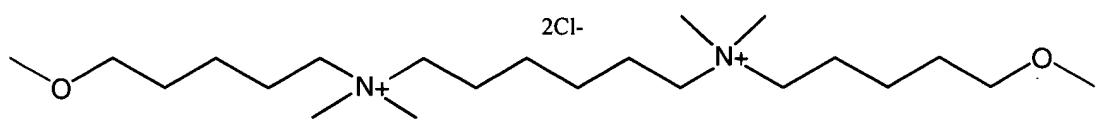
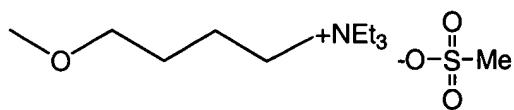
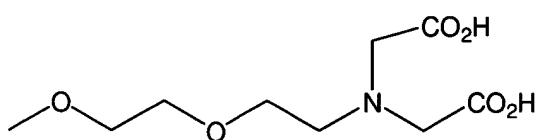
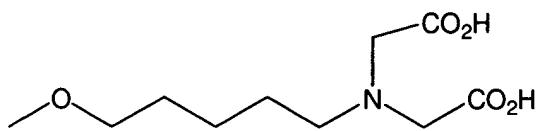
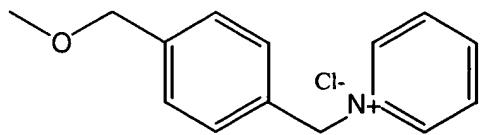
77. (Currently Amended) A compound of claim 76 wherein R⁵ is:

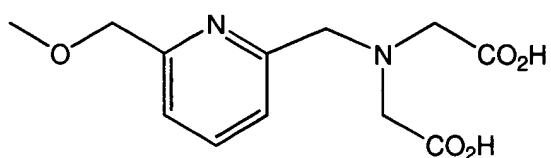
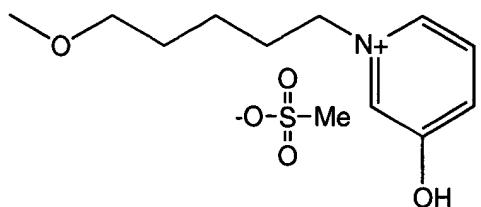
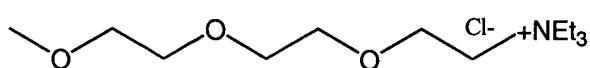
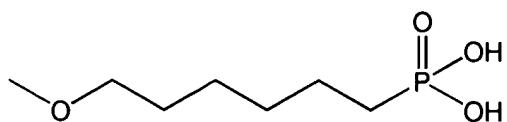
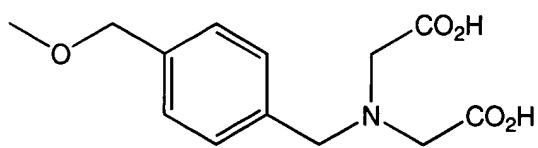
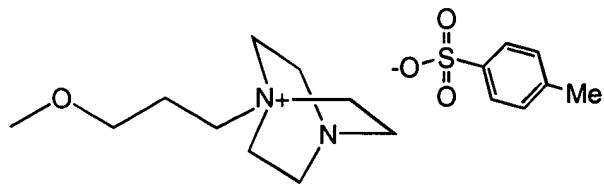


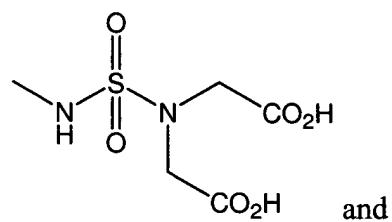
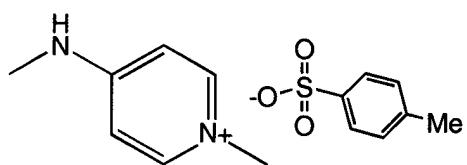
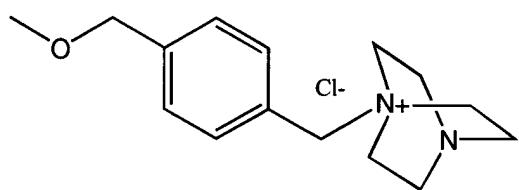
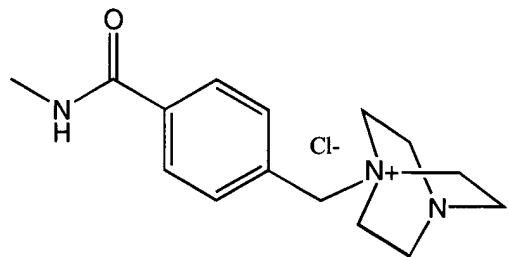
wherein

k is 0, 1, 2, 3 or 4; and

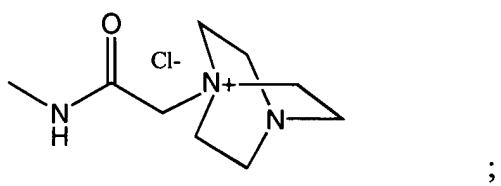
one or more R¹⁹ are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and







and



wherein the R^{19} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $\underline{-N^+R^7R^8R^9A^-}$; $\underline{-N^+R^7R^8R^9A^-}$; $-P(O)R^7R^8$; $-PR^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the R^{19} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by $-O-$; $-NR^7-$; $-N^+R^7R^8A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^7A^-$; $-PR^7-$; $-P(O)R^7-$; $-P^+R^7R^8A^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 and R^{10} are independently selected from R^W and ~~carboxyalkylheterocycle~~;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-OR^9$; $-NR^9R^{10}$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; and $-CONR^9R^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary

heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

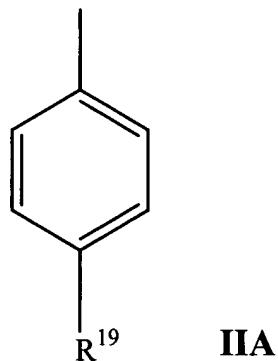
wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹; -N⁺R⁹R¹⁰A⁻; -S-; -

SO_2^- ; $-\text{S}^+ \text{R}^9 \text{A}^-$; $-\text{PR}^9$; $-\text{P}^+ \text{R}^9 \text{R}^{10} \text{A}^-$; $-\text{P}(\text{O})\text{R}^9$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

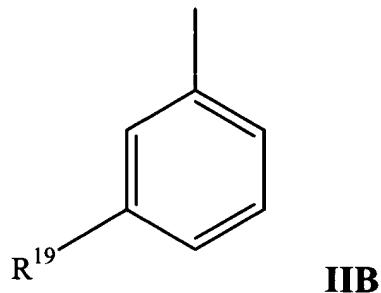
wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

78. (original) A compound of claim 77 wherein R^5 is:



wherein R^{19} is as defined in Claim 77.

79. (original) A compound of claim 77 wherein R^5 is:



wherein R^{19} is as defined in Claim 77.

80. (original) A compound of claim 77 wherein:

R^3 is R^5 ; and

R^4 is selected from the group consisting of hydrogen and alkyl.

81. (original) A compound of claim 77 wherein:

R^3 is selected from the group consisting of hydrogen and alkyl; and

R^4 is R^5 .

82. (Currently Amended) A compound of claim 77 wherein:

R^3 is R^5 ; and

R^4 is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and $-OR^9$;

wherein the R^4 alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-NR^{13}C(O)R^{14}$; $-NR^{13}C(O)NR^{14}R^{15}$; $-NR^{13}CO_2R^{14}$; $-OC(O)R^{13}$; $-OC(O)NR^{13}R^{14}$; $-NR^{13}SOR^{14}$; $-NR^{13}SO_2R^{14}$; $-NR^{13}SONR^{14}R^{15}$; $-NR^{13}SO_2NR^{14}R^{15}$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; and $-N^+R^{13}R^{14}R^{15}A^-$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^4 radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy, alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; $-OR^7$; $-NR^7R^8$; $-SR^7$; $-S(O)R^7$; $-SO_2R^7$; $-SO_3R^7$; $-CO_2R^7$; $-CONR^7R^8$; $\underline{N^+R^7R^8R^9A^-}$; $\underline{N^+R^7R^8R^9A^-}$; $-P(O)R^7R^8$; $-P^+R^7R^8R^9A^-$; and $-P(O)(OR^7)OR^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R⁴ radical optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹, R¹⁰, and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

~~wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹⁰A⁻ and~~

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

83. (Currently Amended) A compound of claim 77 wherein:

R^3 is selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, and $-OR^9$;

wherein the R^3 alkyl; cycloalkyl; aryl; heterocyclyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -P⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^3 radical optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻-; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻-; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻-; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl;

guanidinyl; $-\text{OR}^{16}$; $-\text{NR}^9\text{R}^{10}$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{R}^w\text{A}^-$; $-\text{SR}^{16}$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^{16}$; $-\text{CO}_2\text{R}^{16}$; $-\text{CONR}^9\text{R}^{10}$; $-\text{SO}_2\text{NR}^9\text{R}^{10}$; $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$; $-\text{PR}^9\text{R}^{10}$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{R}^{11}\text{A}^-$; $-\text{S}^+\text{R}^9\text{R}^{10}\text{A}^-$; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} are alkyl, polyether, aryl, quaternary heterocyclic, arylalkyl, heterocyclicalkyl, quaternary heterocyclicalkyl, alkylheterocyclicalkyl, and alkylaminoalkyl optionally may be substituted with $\text{N}^+\text{R}^9\text{R}^{11}\text{R}^{12}\text{A}^-$; and

wherein the R^{13} , R^{14} , and R^{15} are alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclic; quaternary heterocyclic; arylalkyl; heterocyclicalkyl; quaternary heterocyclicalkyl; alkylarylalkyl; alkylheterocyclicalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^9-$; $-\text{N}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^9\text{A}^-$; $-\text{PR}^9-$; $-\text{P}^+\text{R}^9\text{R}^{10}\text{A}^-$; $-\text{P}(\text{O})\text{R}^9-$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R^4 is R^5 .

84. (Currently Amended) A compound of claim 77 wherein:

R^{19} is independently selected from the group consisting of $-\text{OR}^{13}$, $-\text{NR}^{13}\text{R}^{14}$, $-\text{NR}^{13}\text{C}(\text{O})\text{R}^{14}$, $-\text{OC}(\text{O})\text{NR}^{13}\text{R}^{14}$, and $-\text{NR}^{13}\text{SO}_2\text{R}^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclic, arylalkyl, heterocyclicalkyl, quaternary heterocyclicalkyl, alkylheterocyclicalkyl, and alkylaminoalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $\text{N}^+ \text{R}^9 \text{R}^{10} \text{A}^-$
 $\text{N}^+ \text{R}^9 \text{R}^{10} \text{A}^-$, and

wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, $-\text{SR}^9$, $-\text{S}(\text{O})\text{R}^9$, $-\text{S}(\text{O})_2\text{R}^9$, $-\text{S}(\text{O})_3\text{R}^9$, $-\text{NR}^9\text{R}^{10}$, $-\text{N}^+ \text{R}^9 \text{R}^{11} \text{R}^{12} \text{A}^-$, $-\text{CONR}^9\text{R}^{10}$, and $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocycl; and

wherein R^{11} and R^{12} are independently alkyl; and

wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

85. (Previously amended) A compound of claim 77 wherein:

R^{19} is independently selected from the group consisting of $-\text{OR}^{13}$, $-\text{NR}^{13}\text{R}^{14}$, $-\text{NR}^{13}\text{C}(\text{O})\text{R}^{14}$, $-\text{OC}(\text{O})\text{NR}^{13}\text{R}^{14}$, and $-\text{NR}^{13}\text{SO}_2\text{R}^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of polyether, aryl, quaternary heterocycl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, and alkylheterocyclalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $\text{N}^+ \text{R}^9 \text{R}^{10} \text{A}^-$, and

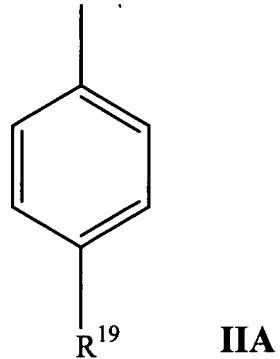
wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclalkyl, $-\text{SR}^9$, $-\text{S}(\text{O})\text{R}^9$, $-\text{S}(\text{O})_2\text{R}^9$, $-\text{S}(\text{O})_3\text{R}^9$, $-\text{NR}^9\text{R}^{10}$, $-\text{N}^+ \text{R}^9 \text{R}^{11} \text{R}^{12} \text{A}^-$, $-\text{CONR}^9\text{R}^{10}$, and $-\text{PO}(\text{OR}^{16})\text{OR}^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocycl; and

wherein R^{11} and R^{12} are independently alkyl; and

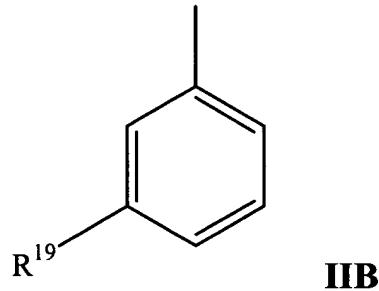
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

86. (original) A compound of claim 84 wherein R^5 is:



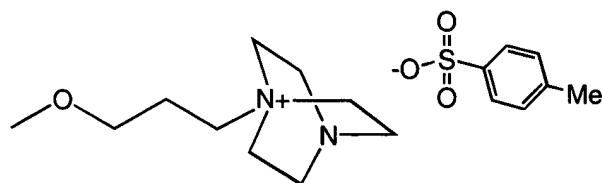
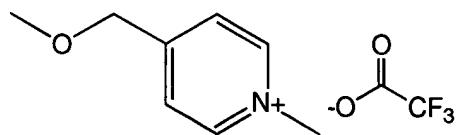
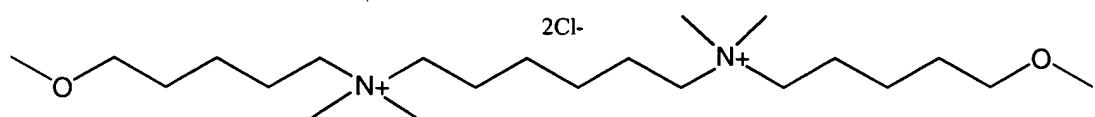
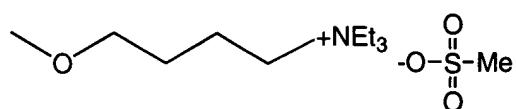
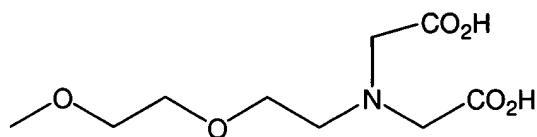
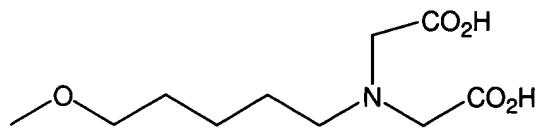
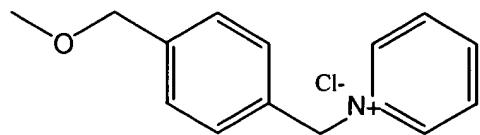
wherein R^{19} is as defined in Claim 84.

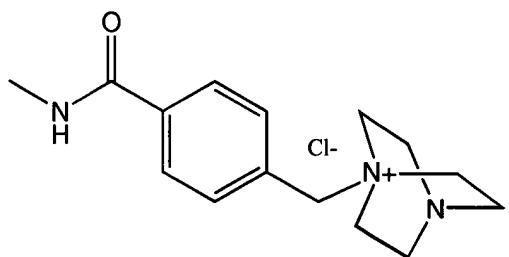
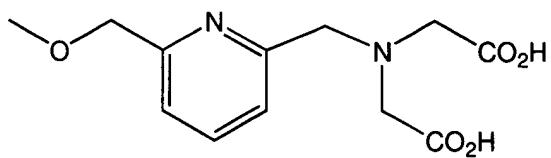
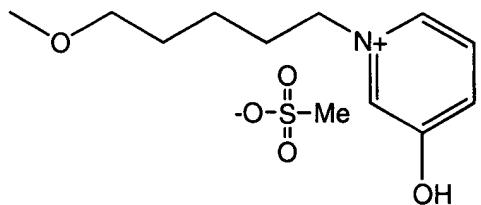
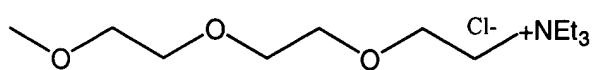
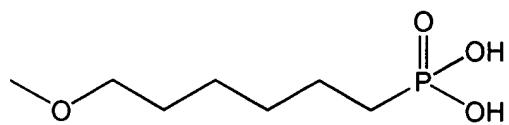
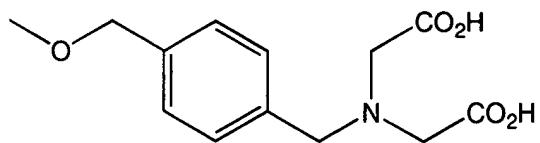
87. (original) A compound of claim 84 wherein R^5 is:

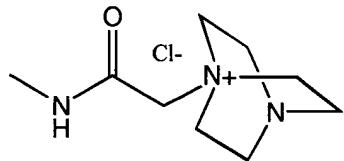
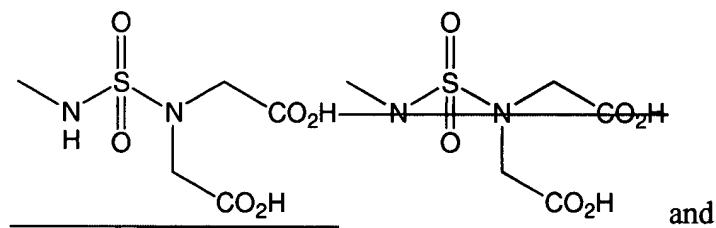
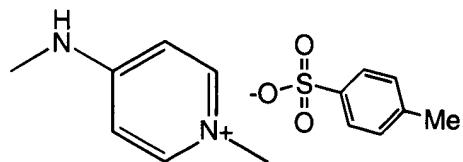
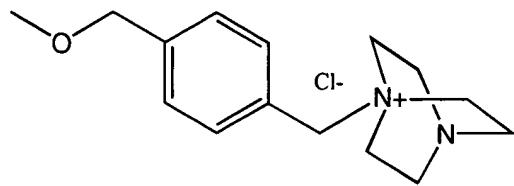


wherein R^{19} is as defined in Claim 84.

88. (Currently Amended) A compound of claim 77 wherein R^{19} is selected from the group consisting of:







89. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

90. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from alkyl.

91. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

92. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R^3 is R^5 ; and

R^4 is selected from hydrogen and alkyl.

93. (original) A compound of claim 84 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R^3 is selected from hydrogen and alkyl; and

R^4 is R^5 .

94. (original) A compound of claim 84 wherein j is 1 or 2.

95. (original) A compound of claim 84 wherein j is 2.

96. (original) A compound of claim 84 wherein R^{1A} and R^{1B} are hydrogen.

97. (original) A compound of claim 84 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

98. (original) A compound of claim 84 wherein R^{2A} and R^{2B} are independently selected from the group consisting C₁₋₆alkyl.

99. (original) A compound of claim 84 wherein R^{2A} and R^{2B} are the same alkyl.

100. (original) A compound of claim 84 wherein R^{2A} and R^{2B} are each n-butyl.

101. (original) A compound of claim 84 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

102. (original) A compound of claim 84 wherein one or more R⁶ are independently selected from methoxy and dimethylamino.

103. (original) A compound of claim 84 wherein

j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

104. (original) A compound of claim 84 wherein

j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

105. (original) A compound of claim 88 wherein:

j is 2;

R^{1A} and R^{1B} are independently selected from hydrogen and alkyl; and

R^{2A} and R^{2B} are independently selected from hydrogen and alkyl.

106. (original) A compound of claim 88 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from alkyl.

107. (original) A compound of claim 88 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen; and

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl.

108. (original) A compound of claim 88 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R³ is R⁵; and

R⁴ is selected from hydrogen and alkyl.

109. (original) A compound of claim 88 wherein:

j is 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are independently selected from ethyl, propyl and butyl;

R³ is selected from from hydrogen and alkyl; and

R⁴ is R⁵.

110. (original) A compound of claim 88 wherein j is 1 or 2.

111. (original) A compound of claim 88 wherein j is 2.

112. (original) A compound of claim 88 wherein R^{1A} and R^{1B} are hydrogen.

113. (original) A compound of claim 88 wherein R^{2A} and R^{2B} are independently selected from the group consisting of hydrogen and C₁₋₆alkyl.

114. (original) A compound of claim 88 wherein R^{2A} and R^{2B} are independently selected from the group consisting C₁₋₆alkyl.

115. (original) A compound of claim 88 wherein R^{2A} and R^{2B} are the same alkyl.

116. (original) A compound of claim 88 wherein R^{2A} and R^{2B} are each n-butyl.

117. (original) A compound of claim 88 wherein one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl.

118. (original) A compound of claim 88 wherein one or more R⁶ are independently selected from methoxy and dimethylamino.

119. (original) A compound of claim 88 wherein

j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

R^{2A} and R^{2B} are n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

120. (original) A compound of claim 88 wherein

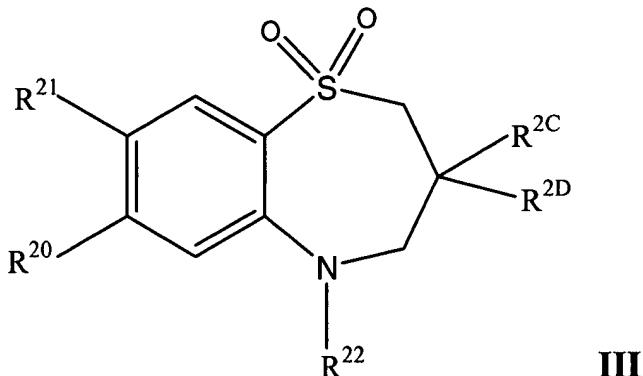
j is 1 or 2;

R^{1A} and R^{1B} are hydrogen;

one of R^{2A} and R^{2B} is ethyl and the other of R^{2A} and R^{2B} is n-butyl; and

one or more R⁶ are independently selected from methoxy and dimethylamino.

121. (Currently Amended) A compound of Formula III:



wherein:

R^{2C} and R^{2D} are independently selected from C_{1-6} alkyl; and

R^{20} is selected from the group consisting of halogen and R^{23} ;

R^{21} is selected from the group consisting of hydroxy, alkoxy, and R^{23} ; and

wherein R^{23} is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{23} aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -

$\text{S}(\text{O})\text{R}^7$; $-\text{SO}_2\text{R}^7$; $-\text{SO}_3\text{R}^7$; $-\text{CO}_2\text{R}^7$; $-\text{CONR}^7\text{R}^8$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{P}(\text{O})\text{R}^7\text{R}^8$; $-\text{P}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; and $-\text{P}(\text{O})(\text{OR}^7)\text{OR}^8$; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{23} aryl optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^7-$; $-\text{N}^+\text{R}^7\text{R}^8\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2-$; $-\text{S}^+\text{R}^7\text{A}^-$; $-\text{PR}^7-$; $-\text{P}(\text{O})\text{R}^7-$; $-\text{P}^+\text{R}^7\text{R}^8\text{A}^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 and R^{10} are independently selected from R^w and carboxyalkylheterocycle;

wherein R^w is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-\text{CN}$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-\text{OR}^9$; $-\text{NR}^9\text{R}^{10}$; $-\text{SR}^9$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; and $-\text{CONR}^9\text{R}^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

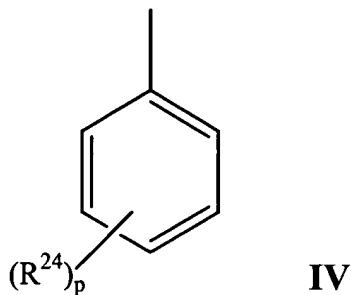
wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R^{22} is unsubstituted phenyl or R^{23} ; or
a pharmaceutically acceptable salt or solvate thereof;
provided that at least one of R^{20} , R^{21} and R^{22} is R^{23} .

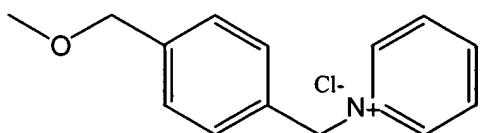
122. (Currently Amended) A compound of Claim 121 wherein R^{23} is:

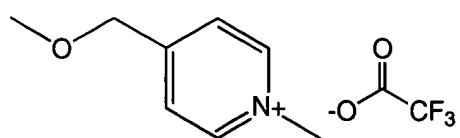
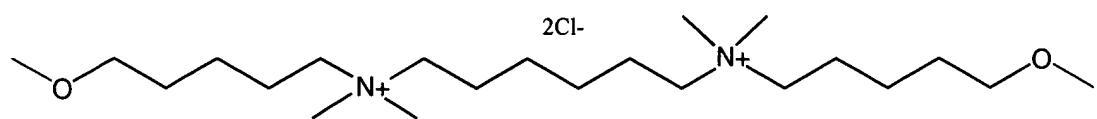
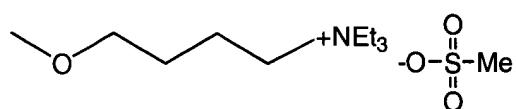
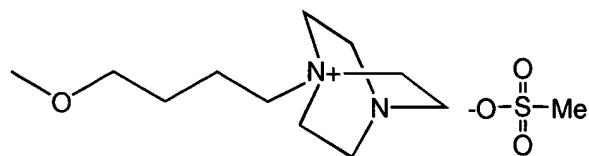
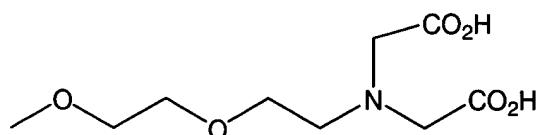
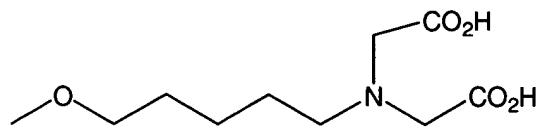


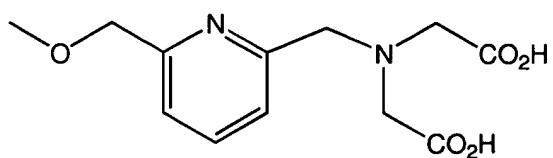
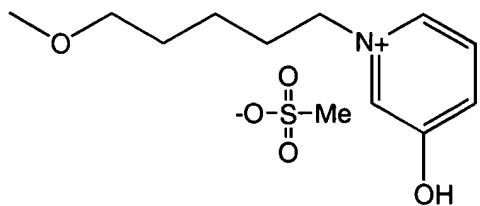
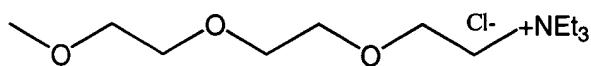
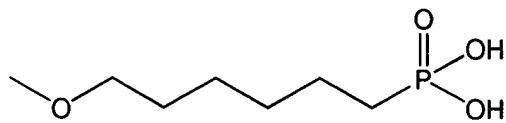
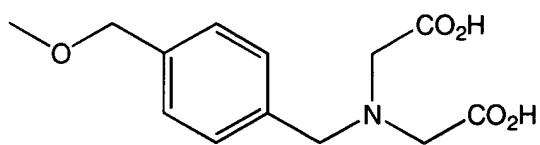
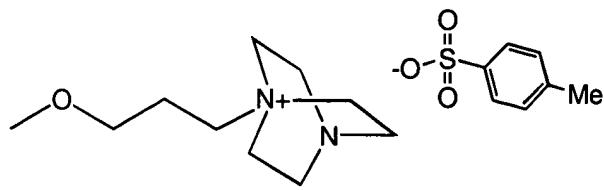
wherein

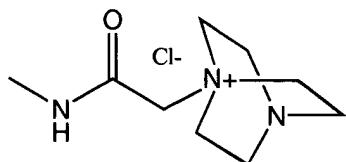
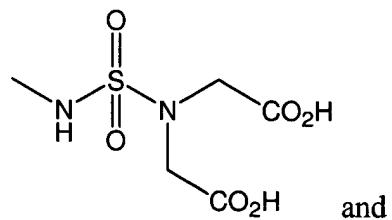
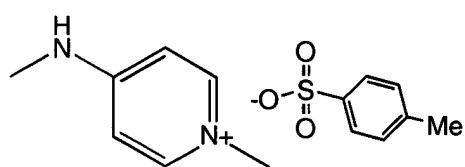
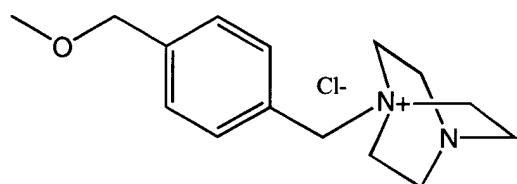
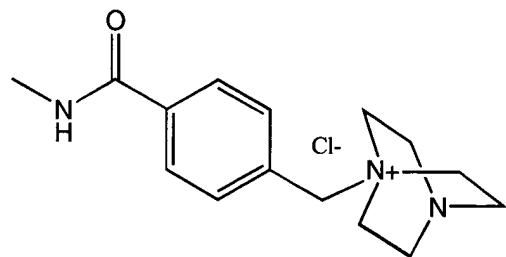
p is 1, 2, 3 or 4; and

one or more R^{24} are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and









wherein the R^{24} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A-; -N⁺R⁷R⁸R⁹A-; -P(O)R⁷R⁸; -PR⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the R^{24} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 and R^{10} are independently selected from R^W and carboxyalkylheterocycle;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary

heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

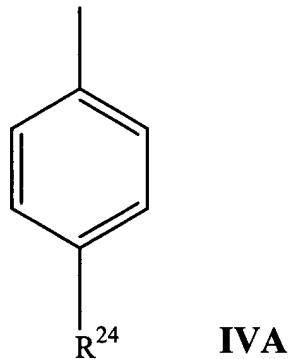
wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹; -N⁺R⁹R¹⁰A⁻; -S-; -

SO_2^- ; $-\text{SO}_2^-$; $-\text{S}^+ \text{R}^9 \text{A}^-$; $-\text{PR}^9 \text{A}^-$; $-\text{P}^+ \text{R}^9 \text{R}^{10} \text{A}^-$; $-\text{P}(\text{O})\text{R}^9$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

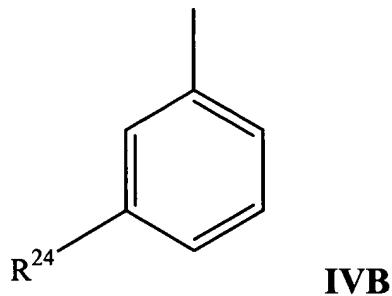
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

123. (original) A compound of claim 122 wherein R^{23} is:



wherein R^{24} is as defined in Claim 122.

124. (original) A compound of claim 122 wherein R^{23} is:



wherein R^{24} is as defined in Claim 122.

125. (Currently Amended) A compound of claim 122 wherein:

R^{24} is independently selected from the group consisting of $-OR^{13}$, $-NR^{13}R^{14}$, $-NR^{13}C(O)R^{14}$, $-OC(O)NR^{13}R^{14}$, and $-NR^{13}SO_2R^{14}$, and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $N^+R^9R^{10}A^-$
 $N^+R^9R^{10}A^-$, and

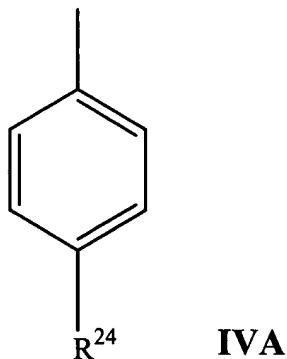
wherein R^{13} , R^{14} , and R^{15} are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclylalkyl, $-SR^9$, $-S(O)R^9$, $-S(O)_2R^9$, $-S(O)_3R^9$, $-NR^9R^{10}$, $-N^+R^9R^{11}R^{12}A^-$, $-CONR^9R^{10}$, and $-PO(OR^{16})OR^{17}$, and

wherein R^9 and R^{10} are independently selected from the group consisting of hydrogen, alkyl, heterocyclylalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R^{11} and R^{12} are independently alkyl; and

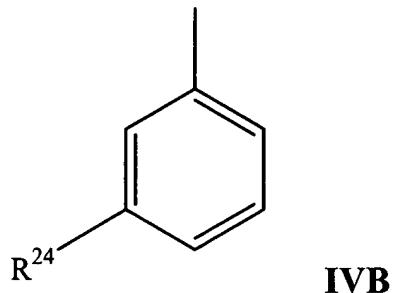
wherein A^- is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

126. (original) A compound of claim 125 wherein R^{23} is:



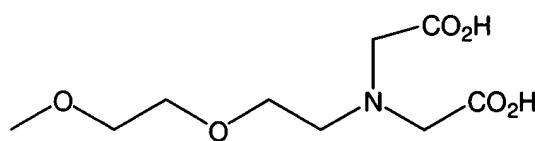
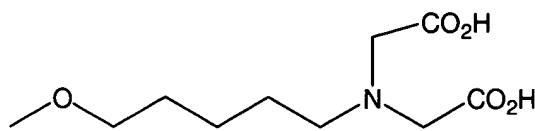
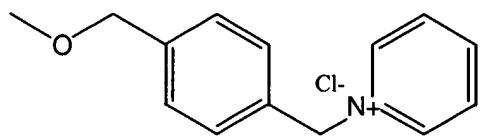
wherein R²⁴ is as defined in Claim 125.

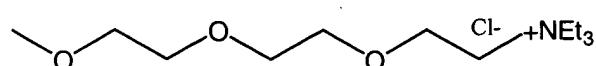
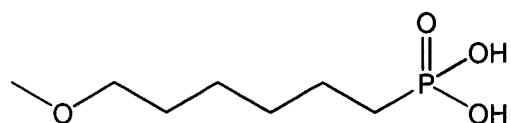
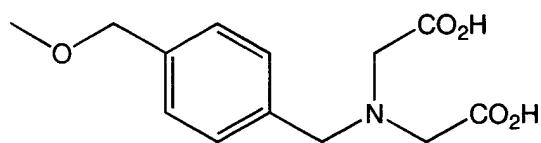
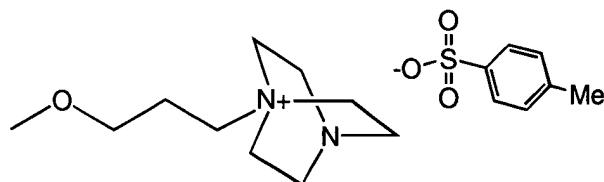
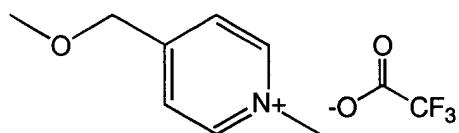
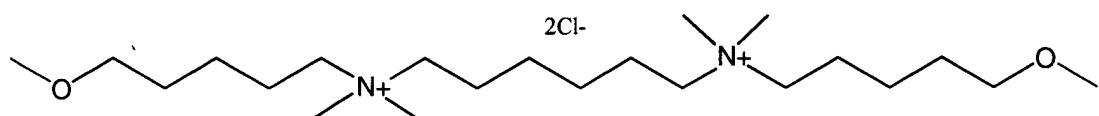
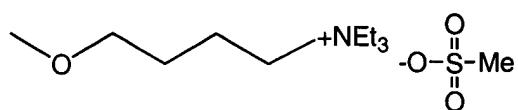
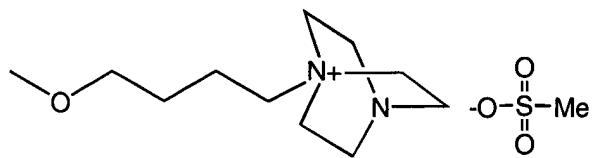
127. (original) A compound of claim 125 wherein R²³ is:

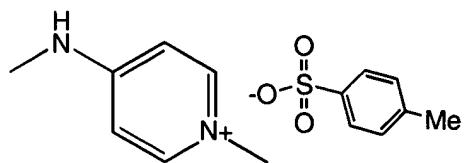
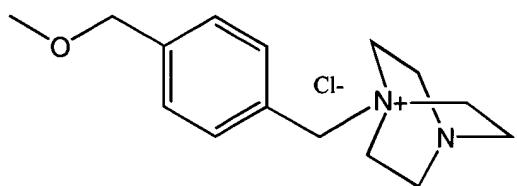
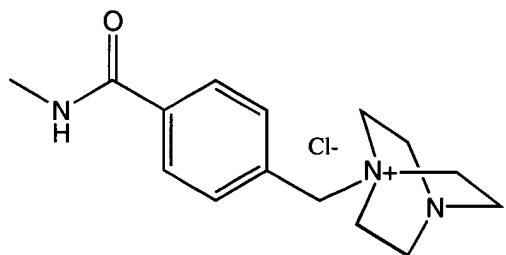
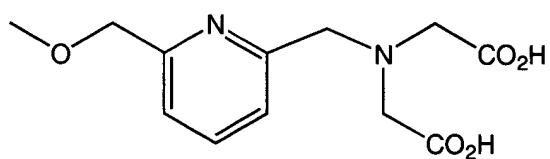
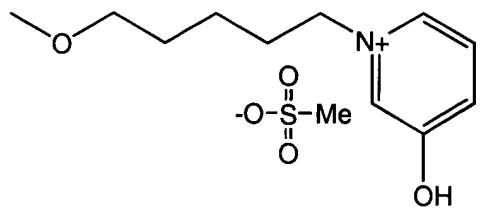


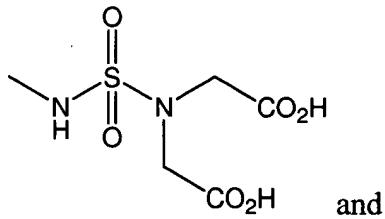
wherein R²⁴ is as defined in Claim 125.

128. (Currently Amended) A compound of claim 122 wherein R²⁴ is selected from the group consisting of:

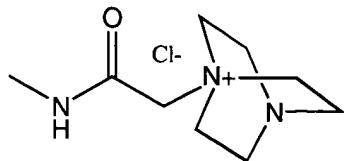








and



129. (original) A compound of claim 122 wherein:
 R^{2C} and R^{2D} are independently selected from ethyl and n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

130. (original) A compound of claim 122 wherein:
 R^{2C} and R^{2D} are n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

131. (original) A compound of claim 122 wherein:
one of R^{2C} and R^{2D} is ethyl and the other of R^{2C} and R^{2D} is n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

132. (original) A compound of claim 122 wherein R^{2C} and R^{2D} are the same alkyl.

133. (original) A compound of claim 122 wherein R^{2C} and R^{2D} are each n-butyl.

134. (original) A compound of claim 122 wherein one of R^{2C} and R^{2D} is ethyl and the other of R^{2C} and R^{2D} is n-butyl.

135. (original) A compound of claim 125 wherein:
 R^{2C} and R^{2D} are independently selected from ethyl and n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

136. (original) A compound of claim 125 wherein:
 R^{2C} and R^{2D} are n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

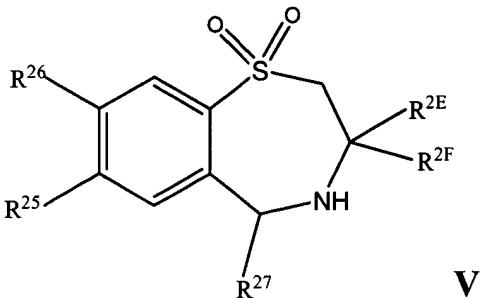
137. (original) A compound of claim 125 wherein:
one of R^{2C} and R^{2D} is ethyl and the other of R^{2C} and R^{2D} is n-butyl;
 R^{20} is chloro; and
 R^{21} is selected from the group consisting of hydroxy and methoxy.

138. (original) A compound of claim 125 wherein R^{2C} and R^{2D} are the same alkyl.

139. (original) A compound of claim 125 wherein R^{2C} and R^{2D} are each n-butyl.

140. (original) A compound of claim 125 wherein one of R^{2C} and R^{2D} is ethyl and the other of R^{2C} and R^{2D} is n-butyl.

141. (Currently Amended) A compound of Formula V:



wherein:

R^{2E} and R^{2F} are independently selected from C_{1-6} alkyl; and

R^{25} and R^{26} are independently selected from the group consisting of hydrogen, alkoxy, and R^{28} ;

wherein R^{28} is aryl substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{28} aryl optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of

the R²⁸ aryl optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹ and R¹⁰ are independently selected from R^W and ~~carboxyalkylheterocycle~~;

wherein R^W is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary

heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹⁴R¹²A⁻; and

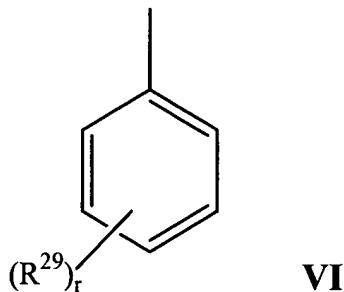
wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A⁻ is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R²⁷ is unsubstituted phenyl or R²⁸; or
a pharmaceutically acceptable salt or solvate thereof;
provided that at least one of R²⁵, R²⁶ and R²⁷ is R²⁸.

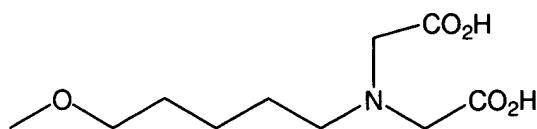
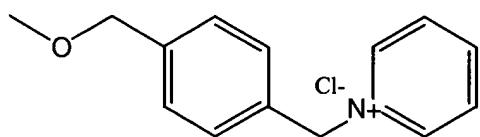
142. (Currently Amended) A compound of Claim 141 wherein R²⁸ is:

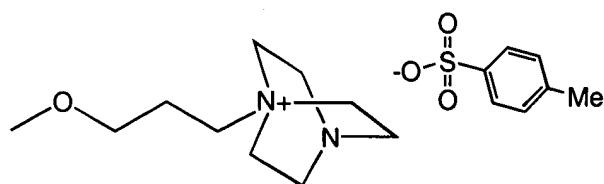
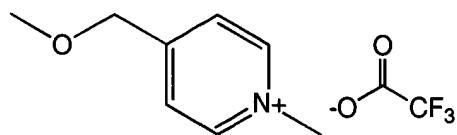
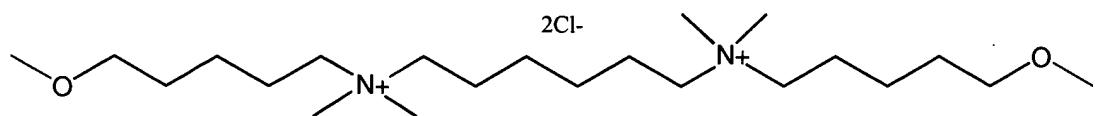
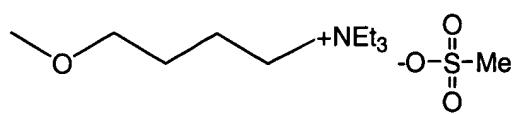
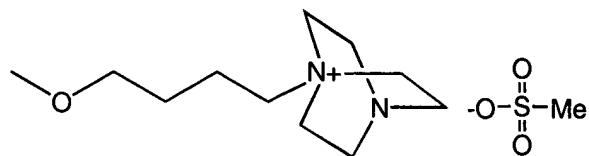
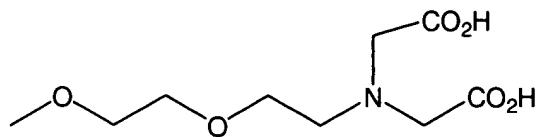


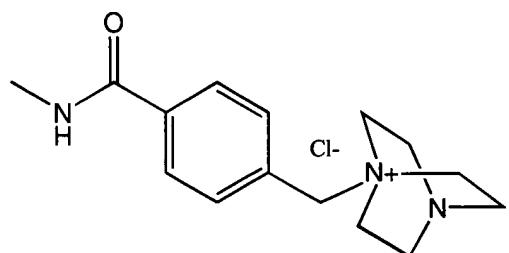
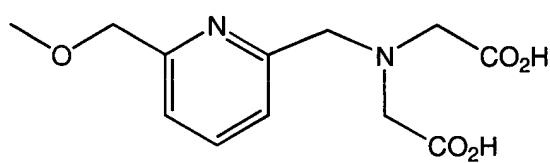
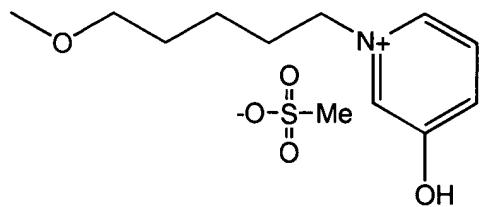
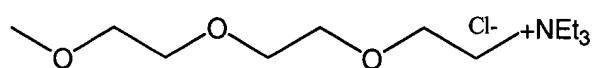
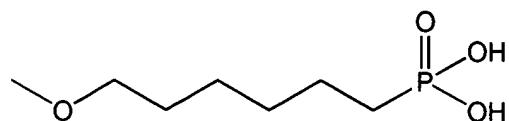
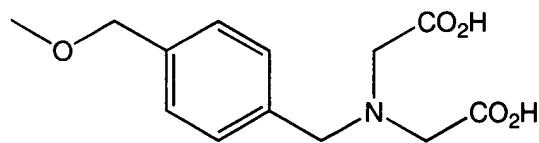
wherein

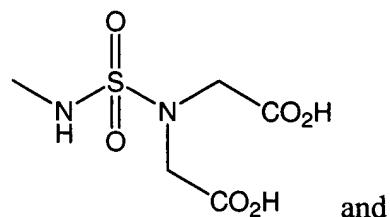
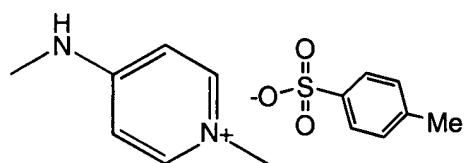
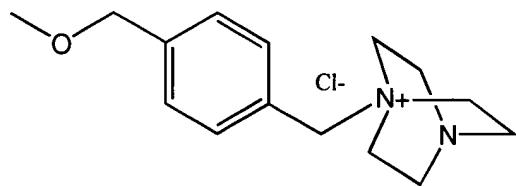
r is 1, 2, 3 or 4; and

one or more R²⁹ are independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and

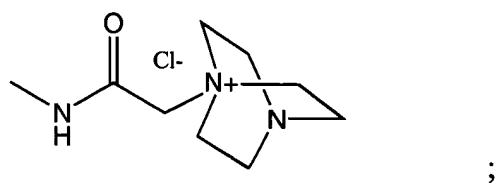








and



;

wherein the R^{29} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, and polyether radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -

SO_3R^7 ; CO_2R^7 ; $-\text{CONR}^7\text{R}^8$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{N}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; $-\text{P}(\text{O})\text{R}^7\text{R}^8$; $-\text{PR}^7\text{R}^8$; $-\text{P}^+\text{R}^7\text{R}^8\text{R}^9\text{A}^-$; and $-\text{P}(\text{O})(\text{OR}^7)\text{OR}^8$; and

wherein the R^{29} alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether radicals optionally may have one or more carbons replaced by $-\text{O}-$; $-\text{NR}^7$; $-\text{N}^+\text{R}^7\text{R}^8\text{A}^-$; $-\text{S}-$; $-\text{SO}-$; $-\text{SO}_2$; $-\text{S}^+\text{R}^7\text{A}^-$; $-\text{PR}^7$; $-\text{P}(\text{O})\text{R}^7$; $-\text{P}^+\text{R}^7\text{R}^8\text{A}^-$; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 and R^{10} are independently selected from R^w and ~~carboxyalkylheterocycle~~;

wherein R^w is selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; $-\text{CN}$; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; $-\text{OR}^9$; $-\text{NR}^9\text{R}^{10}$; $-\text{SR}^9$; $-\text{S}(\text{O})\text{R}^9$; $-\text{SO}_2\text{R}^9$; $-\text{SO}_3\text{R}^9$; $-\text{CO}_2\text{R}^9$; and $-\text{CONR}^9\text{R}^{10}$; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

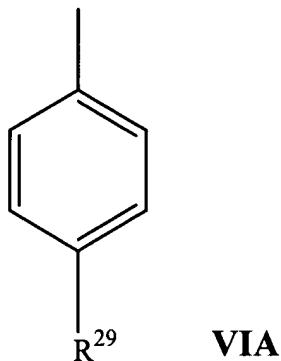
wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M; and

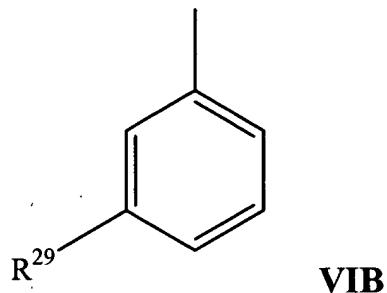
wherein A⁻ is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

143. (original) A compound of claim 142 wherein R²⁸ is:



wherein R²⁹ is as defined in Claim 142.

144. (original) A compound of claim 142 wherein R²⁸ is:



wherein R²⁹ is as defined in Claim 142.

145. (Currently Amended) A compound of claim 142 wherein:

R²⁹ is independently selected from the group consisting of -OR¹³, -NR¹³R¹⁴, -NR¹³C(O)R¹⁴, -OC(O)NR¹³R¹⁴, and -NR¹³SO₂R¹⁴, and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, quaternary heterocyclylalkyl, alkylheterocyclylalkyl, and alkylaminoalkyl,

wherein alkyl optionally has one or more carbons replaced by O or $\text{N}^+ \text{R}^9 \text{R}^{10} \text{A}^-$
 $\text{N}^+ \text{R}^9 \text{R}^{10} \text{A}^-$, and

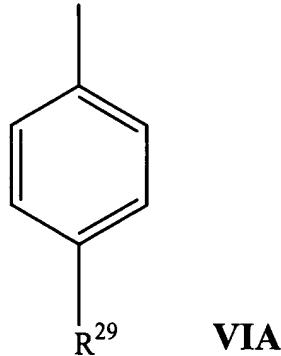
wherein R¹³, R¹⁴, and R¹⁵ are optionally substituted with one or more groups selected from the group consisting of hydroxy, carboxy, alkyl, quaternary heterocyclylalkyl, -SR⁹, -S(O)R⁹, -S(O)₂R⁹, -S(O)₃R⁹, -NR⁹R¹⁰, $\text{N}^+ \text{R}^9 \text{R}^{11} \text{R}^{12} \text{A}^-$, -CONR⁹R¹⁰, and -PO(OR¹⁶)OR¹⁷, and

wherein R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, alkyl, heterocyclylalkyl, carboxyalkyl, carboalkoxyalkyl, and carboxyalkylheterocyclyl; and

wherein R¹¹ and R¹² are independently alkyl; and

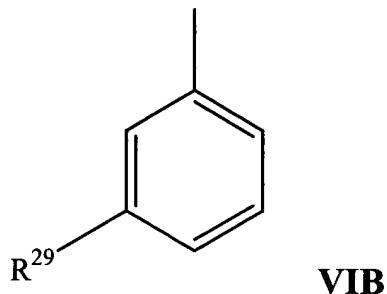
wherein A⁻ is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation.

146. (original) A compound of claim 145 wherein R²⁸ is:



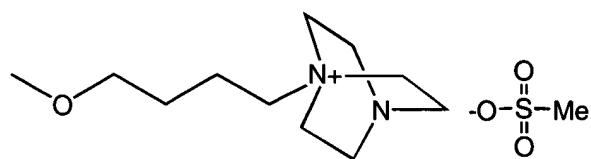
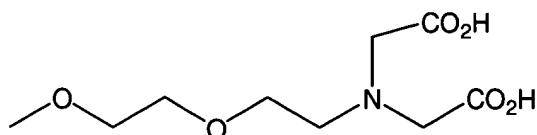
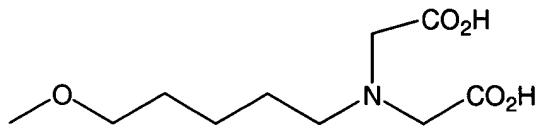
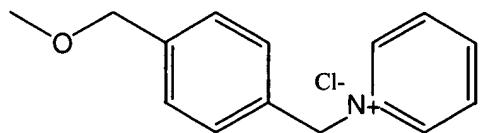
wherein R²⁹ is as defined in Claim 145.

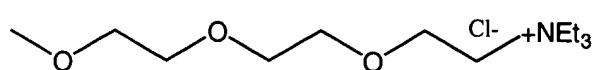
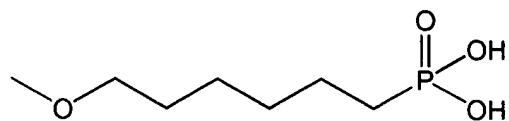
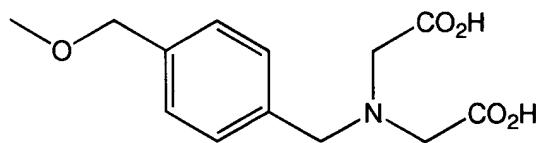
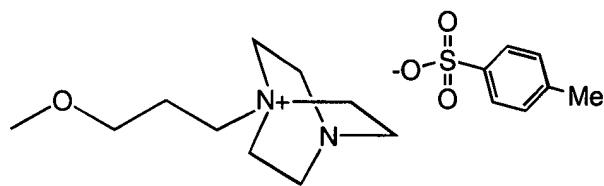
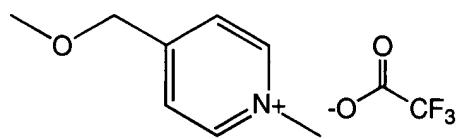
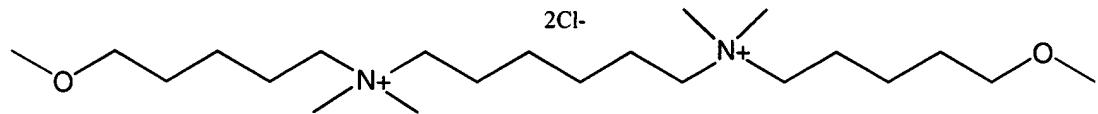
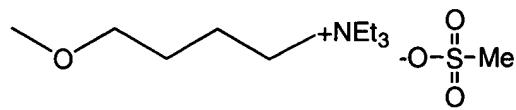
147. (original) A compound of claim 145 wherein R²⁸ is:

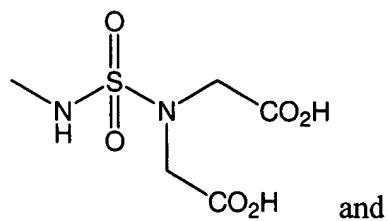
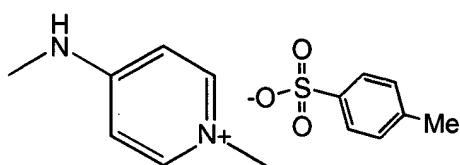
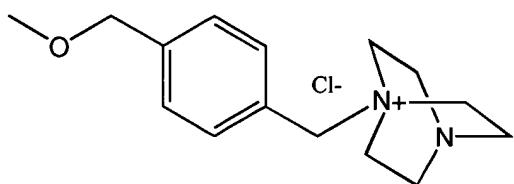
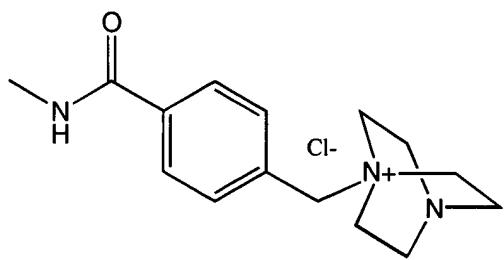
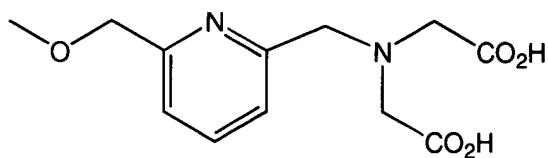
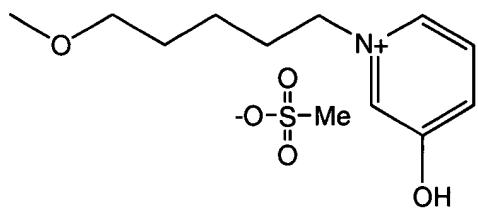


wherein R^{29} is as defined in Claim 145.

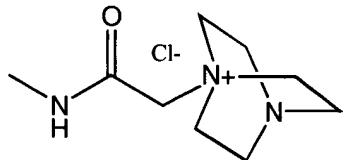
148. (Currently Amended) A compound of claim 142 wherein R^{29} is selected from the group consisting of:







and



149. (original) A compound of claim 142 wherein:
 R^{2E} and R^{2F} are independently selected from ethyl and n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

150. (original) A compound of claim 142 wherein:
 R^{2E} and R^{2F} are n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

151. (original) A compound of claim 142 wherein:
one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

152. (original) A compound of claim 142 wherein R^{2E} and R^{2F} are the same alkyl.

153. (original) A compound of claim 142 wherein R^{2E} and R^{2F} are each n-butyl.

154. (original) A compound of claim 142 wherein one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl.

155. (original) A compound of claim 145 wherein:
 R^{2E} and R^{2F} are independently selected from ethyl and n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

156. (original) A compound of claim 145 wherein:
 R^{2E} and R^{2F} are n-butyl; and

R^{25} and R^{26} are independently selected from hydrogen and methoxy.

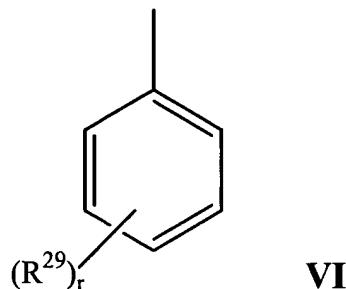
157. (original) A compound of claim 145 wherein:
one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl; and
 R^{25} and R^{26} are independently selected from hydrogen and methoxy.

158. (original) A compound of claim 145 wherein R^{2E} and R^{2F} are the same alkyl.

159. (original) A compound of claim 145 wherein R^{2E} and R^{2F} are each n-butyl.

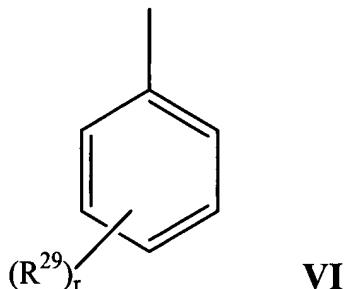
160. (original) A compound of claim 145 wherein one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl.

161. (original) A compound of claim 142 wherein:
one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl;
 R^{25} and R^{26} are hydrogen; and
 R^{27} is:



wherein r is 1 and R^{29} is as defined in claim 142.

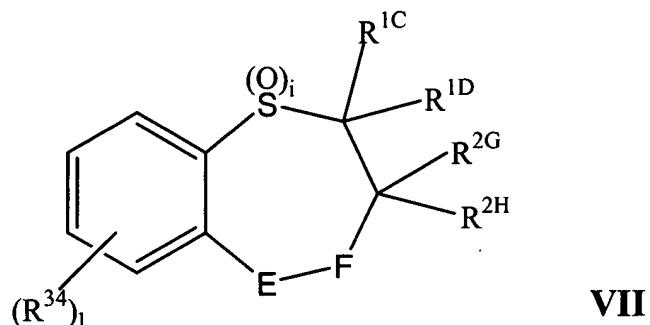
162. (original) A compound of claim 142 wherein:
one of R^{2E} and R^{2F} is ethyl and the other of R^{2E} and R^{2F} is n-butyl; and
 R^{25} and R^{26} are methoxy; and
 R^{27} is:



wherein r is 1 and R²⁹ is as defined in claim 142.

163-166 (Canceled)

167. (Currently Amended) A compound of Formula VII:



wherein:

i is 0, 1 or 2; and

1 is 0, 1, 2, 3 or 4; and

R^{1C} and R^{1D} are independently selected from hydrogen and alkyl; and

R^{2G} and R^{2H} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl and aralkyl; or

R^{2G} and R^{2H} together with the carbon atom to which they are attached form a C₃₋₁₀ cycloalkyl group; and

one of E and F is NR³⁰ and the other of E and F is CHR³¹;

R³⁰ is R³²; and

R³¹ is selected from the group consisting of hydrogen and alkyl;

wherein the R^{31} alkyl radical is substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{31} radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{31} radical optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹, R¹⁰, and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN, alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^WA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R^{13} , R^{14} , and R^{15} alkyl, polyether, aryl, quaternary heterocyclyl, arylalkyl, heterocyclalkyl, quaternary heterocyclalkyl, alkylheterocyclalkyl, and alkylaminoalkyl optionally may be substituted with $N^+R^9R^{11}R^{12}A^-$; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by $-O-$; $-NR^9-$; $-N^+R^9R^{10}A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^9A^-$; $-PR^9-$; $-P^+R^9R^{10}A^-$; $-P(O)R^9$; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R^{16} and R^{17} are independently selected from the group consisting of R^9 and M ; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R^{32} is phenyl substituted with $-N(H)-X-R^{33}$ or $-O-X-R^{33}$ wherein:

X is selected from the group consisting of:

- $-(C=O)_s-alkyl-$;
- $-(C=O)_s-alkyl-NH-$;
- $-(C=O)_s-alkyl-O-$;
- $-(C=O)_s-alkyl-(C=O)_t$; and

a covalent bond;

R_{33} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides;

s and t are independently 0 or 1; and

one or more R^{34} radicals are independently selected from the group consisting of R^{32} , hydrogen; halogen; $-CN$; $-NO_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclalkyl; polyether; acyloxy; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-S(O)2R^{13}$; $-SO_3R^{13}$; $-S^+R^{13}R^{14}A^-$; $-NR^{13}$

OR^{14} ; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-NR^{14}C(O)R^{13}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-OR^{18}$; $-S(O)_nNR^{13}R^{14}$; $-NR^{13}R^{18}$; $-NR^{18}OR^{14}$; $-N^+R^{13}R^{14}R^{15}A^-$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R^{34} alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; $-CN$; $-OR^{16}$; $-NR^9R^{10}$; $-N^+R^9R^{10}R^wA^-$; $-SR^{16}$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^{16}$; $-CO_2R^{16}$; $-CONR^9R^{10}$; $-SO_2NR^9R^{10}$; $-PO(OR^{16})OR^{17}$; $-PR^9R^{10}$; $-P^+R^9R^{11}R^{12}A^-$; $-S^+R^9R^{10}A^-$; and carbohydrate residue; and

wherein the R^{34} quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; $-CN$; $-NO_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; ~~OM-OM~~; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; $-C(O)OM$; $-COR^{13}$; $-P(O)R^{13}R^{14}$; $-PR^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; $-P(OR^{13})OR^{14}$; $-S^+R^{13}R^{14}A^-$; $-N^+R^{13}R^{14}R^{15}A^-$; and carbohydrate residue; and

wherein the R^{34} radicals comprising carbon optionally may have one or more carbons replaced by $-O-$; $-NR^{13}-$; $-N^+R^{13}R^{14}A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^{13}A^-$; $-PR^{13}-$; $-P(O)R^{13}-$; $-PR^{13}R^{14}$; $-P^+R^{13}R^{14}A^-$; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by $-O-$; $-NR^9-$; $-N^+R^9R^{10}A^-$; $-S-$; $-SO-$; $-SO_2-$; $-S^+R^9A^-$; $-PR^9-$; $-P^+R^9R^{10}A^-$; or $-P(O)R^9-$; and

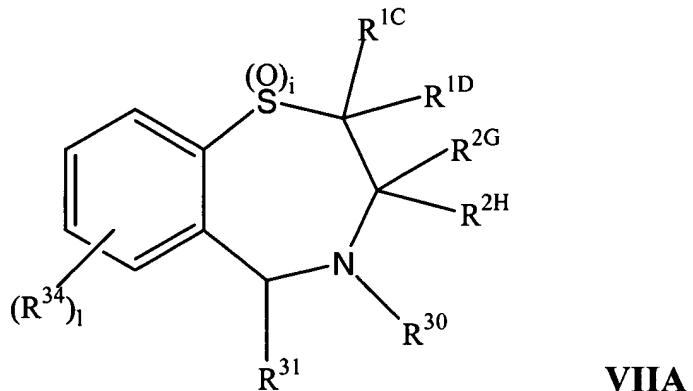
wherein R^{18} is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl; and

wherein the R^{18} alkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclylalkoxy carbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; $-CN$; $-NO_2$; $-OR^9$; $-NR^9R^{10}$; $-N^+R^9R^{11}R^{12}A^-$; $-SR^9$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^9$; $-CO_2R^9$; $-CONR^9R^{10}$; $-SO_2OM$; $-SO_2NR^9R^{10}$; $-PR^9R^{10}$; $-P(OR^{13})OR^{14}$; $-PO(OR^{16})OR^{17}$; and $-C(O)OM$; or

a pharmaceutically acceptable salt or solvate thereof.

168-187 (Canceled)

188. (original) A compound corresponding to Formula VIIA:



wherein:

i is 0, 1 or 2; and

1 is 0, 1, 2, 3 or 4; and

R^{1C} and R^{1D} are independently selected from hydrogen and alkyl; and

R^{2G} and R^{2H} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl and aralkyl; or

R^{2G} and R^{2H} together with the carbon atom to which they are attached form a C_{3-7} cycloalkyl group; and

R^{30} is R^{32} ; and

R^{31} is selected from the group consisting of hydrogen and alkyl;

wherein the R^{31} alkyl radical is independently substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{31} radical optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -P⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R^{30} and R^{31} radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R^7 and R^8 are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R^9 , R^{10} , and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R^{11} and R^{12} are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R^{11} and R^{12} together with the carbon atom to which they are attached form a cyclic ring; and

wherein R^{13} , R^{14} , and R^{15} are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R^{13} and R^{14} together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R^{14} and R^{15} together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R^{13} , R^{14} , and R^{15} alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl;

guanidinyl; -OR¹⁶; -NR⁹R¹⁰; ~~-N⁺R⁹R¹⁰R^wA-N⁺R⁹R¹⁰R^wA-~~; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein ~~R¹³, R¹⁴, and R¹⁵ are alkyl, polyether, aryl, quaternary heteroeyethyl, arylalkyl, heteroeyethylalkyl, quaternary heteroeyethylalkyl, alkylheteroeyethylalkyl, and alkylaminoalkyl~~ optionally may be substituted with ~~N⁺R⁹R¹¹R¹²A⁻~~; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; quaternary heterocyclalkyl; alkylarylalkyl; alkylheterocyclalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R³² is phenyl substituted with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

- (C=O)_s-alkyl-;
- (C=O)_s-alkyl-NH-;
- (C=O)_s-alkyl-O-;
- (C=O)_s-alkyl-(C=O)_t; and

a covalent bond; and

R₃₃ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

s and t are independently 0 or 1; and

one or more R^{34} radicals are independently selected from the group consisting of R^{32} , hydrogen; halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -S(O)2R¹³; -SO₃R¹³; -S⁺R¹³R¹⁴A⁻; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; ~~OM-OM~~; -SO₂OM; -SO₂NR¹³R¹⁴; -NR¹⁴C(O)R¹³; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -OR¹⁸; -S(O)_nNR¹³R¹⁴; -NR¹³R¹⁸; -NR¹⁸OR¹⁴; -N⁺R¹³R¹⁴R¹⁵A⁻; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R^{34} alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; -CN; OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹¹R¹²A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue; and

wherein the R^{34} quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; -NO₂; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -P(O)R¹³R¹⁴; -PR¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and carbohydrate residue; and

wherein the R^{34} radicals comprising carbon optionally may have one or more carbons replaced by -O-; -NR¹³-; -N⁺R¹³R¹⁴A⁻; -S-; -SO-; -SO₂-; -S⁺R¹³A⁻; -PR¹³-; -P(O)R¹³-; -PR¹³R¹⁴; -P⁺R¹³R¹⁴A⁻; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue;

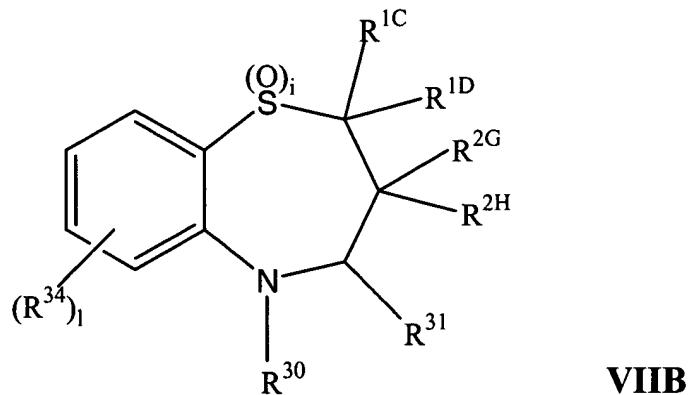
peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; or -P(O)R⁹-; and

wherein R¹⁸ is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclalkoxy carbonyl; and

wherein the R¹⁸ alkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclalkoxy carbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; NO₂; -OR⁹; -NR⁹R¹⁰; -N⁺R⁹R¹¹R¹²A⁻; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; -CONR⁹R¹⁰; -SO₂OM; -SO₂NR⁹R¹⁰; -PR⁹R¹⁰; -P(OR¹³)OR¹⁴; -PO(OR¹⁶)OR¹⁷; and -C(O)OM; or a pharmaceutically acceptable salt or solvate thereof.

189-204 (Canceled).

205. (Currently Amended) A compound of claim 163 corresponding to Formula VIIB:



wherein:

i is 0, 1 or 2; and

l is 0, 1, 2, 3 or 4; and

R^{1C} and R^{1D} are independently selected from hydrogen and alkyl; and

R^{2G} and R^{2H} are independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl and aralkyl; or

R^{2G} and R^{2H} together with the carbon atom to which they are attached form a C₃₋₇ cycloalkyl group; and

R³⁰ and R³¹ are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; aryl; heterocyclyl; acyl, thioacyl, -OR⁹, and R³²;

wherein the R³⁰ and R³¹ alkyl; cycloalkyl; aryl; heterocyclyl radicals are independently substituted with one or more radicals independently selected from the group consisting of halogen; -CN; -NO₂; alkyl; polyalkyl; haloalkyl; hydroxyalkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; -OR¹³; -NR¹³R¹⁴; -SR¹³; -S(O)R¹³; -SO₂R¹³; -SO₃R¹³; -NR¹³OR¹⁴; -NR¹³NR¹⁴R¹⁵; -CO₂R¹³; -OM; -SO₂OM; -SO₂NR¹³R¹⁴; -C(O)NR¹³R¹⁴; -C(O)OM; -COR¹³; -NR¹³C(O)R¹⁴; -NR¹³C(O)NR¹⁴R¹⁵; -NR¹³CO₂R¹⁴; -OC(O)R¹³; -OC(O)NR¹³R¹⁴; -NR¹³SOR¹⁴; -NR¹³SO₂R¹⁴; -NR¹³SONR¹⁴R¹⁵; -NR¹³SO₂NR¹⁴R¹⁵; -PR¹³R¹⁴; -P(O)R¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; and -N⁺R¹³R¹⁴R¹⁵A⁻; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of the R³⁰ and R³¹ radicals optionally may be further substituted with one or more radicals selected from the group consisting of -CN; halogen; hydroxy; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclyl; -OR⁷; -NR⁷R⁸; -SR⁷; -S(O)R⁷; -SO₂R⁷; -SO₃R⁷; -CO₂R⁷; -CONR⁷R⁸; -N⁺R⁷R⁸R⁹A⁻; -N⁺R⁷R⁸R⁹A⁻; -P(O)R⁷R⁸; -P⁺R⁷R⁸R⁹A⁻; and -P(O)(OR⁷)OR⁸; and

wherein the alkyl, polyalkyl, haloalkyl, hydroxyalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heterocyclyl, quaternary heterocyclyl, arylalkyl, heterocyclylalkyl, and polyether substituents of

the R³⁰ and R³¹ radicals optionally may have one or more carbons replaced by -O-; -NR⁷-; -N⁺R⁷R⁸A⁻; -S-; -SO-; -SO₂-; -S⁺R⁷A⁻; -PR⁷-; -P(O)R⁷-; -P⁺R⁷R⁸A⁻; or phenylene; and

wherein R⁷ and R⁸ are independently selected from the group consisting of hydrogen; and alkyl; and

wherein R⁹, R¹⁰, and R^W are independently selected from the group consisting of hydrogen; alkyl; cycloalkyl; alkenyl; alkynyl; aryl; heterocyclyl; alkylaminoalkyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; carboxyaryl; carboxyheterocyclyl; amino; alkylamino; carboxyalkylamino; alkoxyalkylamino; and acyl; and

wherein R¹¹ and R¹² are independently selected from the group consisting of hydrogen; -CN; halogen; alkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; carboxyalkyl; alkoxyalkyl; carboalkoxyalkyl; cycloalkyl; cycloalkenyl; haloalkyl; hydroxyalkyl; cyanoalkyl; -OR⁹; -NR⁹R¹⁰; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; and -CONR⁹R¹⁰; or

R¹¹ and R¹² together with the carbon atom to which they are attached form a cyclic ring; and

wherein R¹³, R¹⁴, and R¹⁵ are independently selected from the group consisting of hydrogen; alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether; or

wherein R¹³ and R¹⁴ together with the nitrogen atom to which they are attached form a mono- or polycyclic heterocyclyl that is optionally substituted with one or more radicals selected from the group consisting of carboxy, and quaternary salts; or

wherein R¹⁴ and R¹⁵ together with the nitrogen atom to which they are attached form a cyclic ring; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl;

aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; alkyl; haloalkyl; hydroxyalkyl; sulfoalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; quaternary heterocyclylalkyl; carboxy; carboxyalkyl; guanidinyl; -OR¹⁶; -NR⁹R¹⁰; -N⁺R⁹R¹⁰R^wA⁻; -SR¹⁶; -S(O)R⁹; -SO₂R⁹; -SO₃R¹⁶; -CO₂R¹⁶; -CONR⁹R¹⁰; -SO₂NR⁹R¹⁰; -PO(OR¹⁶)OR¹⁷; -PR⁹R¹⁰; -P⁺R⁹R¹⁰R¹¹A⁻; -S⁺R⁹R¹⁰A⁻; and carbohydrate residue;

wherein R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylheterocyclylalkyl; and alkylaminoalkyl optionally may be substituted with N⁺R⁹R¹¹R¹²A⁻; and

wherein the R¹³, R¹⁴, and R¹⁵ alkyl; haloalkyl; cycloalkyl; polyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; quaternary heterocyclylalkyl; alkylarylalkyl; alkylheterocyclylalkyl; alkylaminoalkyl; aminoalkyl; aminocarbonylalkyl; alkylaminocarbonylalkyl; carboxyalkylaminocarbonylalkyl; and polyether radicals optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; -P(O)R⁹-; phenylene; carbohydrate residue; amino acid residue; peptide residue; or polypeptide residue; and

wherein R¹⁶ and R¹⁷ are independently selected from the group consisting of R⁹ and M; and

wherein A is a pharmaceutically acceptable anion and M is a pharmaceutically acceptable cation; and

R³² is selected from the group consisting of cycloalkyl, aryl and heterocyclyl, wherein said cycloalkyl, aryl and heterocyclyl are substituted with -N(H)-X-R³³ or -O-X-R³³ and wherein:

X is selected from the group consisting of:

- (C=O)_s-alkyl-;
- (C=O)_s-alkyl-NH-;
- (C=O)_s-alkyl-O-;

$-(C=O)_s$ -alkyl- $(C=O)_t$; and

a covalent bond; and

R_{33} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides, wherein said monosaccharides, disaccharides, and polysaccharides may be protected with one or more sugar protecting groups; and

s and t are independently 0 or 1; and

one or more R^{34} radicals are independently selected from the group consisting of R^{32} , hydrogen; halogen; $-CN$; $-NO_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; quaternary heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-S(O)2R^{13}$; $-SO_3R^{13}$; $-S^+R^{13}R^{14}A^-$; $-NR^{13}OR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; $-OM$; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-NR^{14}C(O)R^{13}$; $-C(O)NR^{14}$; $-C(O)OM$; $-COR^{13}$; $-OR^{18}$; $-S(O)_nNR^{13}R^{14}$; $-NR^{13}R^{18}$; $-NR^{18}OR^{14}$; $-N^+R^{13}R^{14}R^{15}A^-$; $-PR^{13}R^{14}$; $-P(O)R^{13}R^{14}$; $-P^+R^{13}R^{14}R^{15}A^-$; amino acid residue; peptide residue; polypeptide residue; and carbohydrate residue;

wherein the R^{34} alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; acyloxy radicals optionally may be further substituted with one or more radicals selected from the group consisting of halogen; $-CN$; $-OR^{16}$; $-NR^9R^{10}$; $-N^+R^9R^{10}R^wA^-$; $-SR^{16}$; $-S(O)R^9$; $-SO_2R^9$; $-SO_3R^{16}$; $-CO_2R^{16}$; $-CONR^9R^{10}$; $-SO_2NR^9R^{10}$; $-PO(OR^{16})OR^{17}$; $-PR^9R^{10}$; $-P^+R^9R^{11}R^{12}A^-$; $-S^+R^9R^{10}A^-$; and carbohydrate residue; and

wherein the R^{34} quaternary heterocyclyl radical optionally may be substituted with one or more radicals selected from the group consisting of halogen; $-CN$; $-NO_2$; alkyl; cycloalkyl; polyalkyl; haloalkyl; hydroxyalkyl; alkenyl; alkynyl; aryl; heterocyclyl; arylalkyl; heterocyclylalkyl; polyether; $-OR^{13}$; $-NR^{13}R^{14}$; $-SR^{13}$; $-S(O)R^{13}$; $-SO_2R^{13}$; $-SO_3R^{13}$; $-NR^{14}$; $-NR^{13}NR^{14}R^{15}$; $-CO_2R^{13}$; ~~OM-OM~~; $-SO_2OM$; $-SO_2NR^{13}R^{14}$; $-C(O)NR^{13}R^{14}$; -

C(O)OM; -COR¹³; -P(O)R¹³R¹⁴; -PR¹³R¹⁴; -P⁺R¹³R¹⁴R¹⁵A⁻; -P(OR¹³)OR¹⁴; -S⁺R¹³R¹⁴A⁻; -N⁺R¹³R¹⁴R¹⁵A⁻; and carbohydrate residue; and

wherein the R³⁴ radicals comprising carbon optionally may have one or more carbons replaced by -O-; -NR¹³-; -N⁺R¹³R¹⁴A⁻; -S-; -SO-; -SO₂-; -S⁺R¹³A⁻; -PR¹³-; -P(O)R¹³-; -PR¹³R¹⁴; -P⁺R¹³R¹⁴A⁻; phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; polyether; or polyalkyl; wherein said phenylene; amino acid residue; peptide residue; polypeptide residue; carbohydrate residue; and polyalkyl optionally may have one or more carbons replaced by -O-; -NR⁹-; -N⁺R⁹R¹⁰A⁻; -S-; -SO-; -SO₂-; -S⁺R⁹A⁻; -PR⁹-; -P⁺R⁹R¹⁰A⁻; or -P(O)R⁹-; and

wherein R¹⁸ is selected from the group consisting of alkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclalkoxy carbonyl; and

wherein the R¹⁸ alkyl; alkenyl; alkynyl; aryl; heterocycl; quaternary heterocycl; arylalkyl; heterocyclalkyl; acyl; alkoxy carbonyl; arylalkoxy carbonyl; and heterocyclalkoxy carbonyl radicals optionally may be substituted with one or more radicals selected from the group consisting of halogen; -CN; NO₂; -OR⁹; -NR⁹R¹⁰; -N⁺R⁹R¹¹R¹²A⁻; -SR⁹; -S(O)R⁹; -SO₂R⁹; -SO₃R⁹; -CO₂R⁹; -CONR⁹R¹⁰; -SO₂OM; -SO₂NR⁹R¹⁰; -PR⁹R¹⁰; -P(OR¹³)OR¹⁴; -PO(OR¹⁶)OR¹⁷; and -C(O)OM; or

a pharmaceutically acceptable salt or solvate thereof;
provided that at least one of R³⁰, R³¹ and R³⁴ is R³².

206. (original) A compound of Claim 205 wherein R³² is phenyl substituted with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

-(C=O)_s-alkyl-;
-(C=O)_s-alkyl-NH-;

-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O)_t; and
a covalent bond; and

R₃₃ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

s and t are independently 0 or 1.

207. (original) A compound of Claim 206 wherein R³² is phenyl substituted at the para-position with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

-(C=O)_s-alkyl-;
-(C=O)_s-alkyl-NH-;
-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O)_t; and
a covalent bond; and

R³³ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

s and t are independently 0 or 1.

208. (original) A compound of Claim 206 wherein R³² is phenyl substituted at the meta-position with -N(H)-X-R³³ or -O-X-R³³ wherein:

X is selected from the group consisting of:

-(C=O)_s-alkyl-;
-(C=O)_s-alkyl-NH-;
-(C=O)_s-alkyl-O-;
-(C=O)_s-alkyl-(C=O)_t; and
a covalent bond; and

R₃₃ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

s and t are independently 0 or 1.

209. (original) A compound of claim 206 wherein:

R^{30} is R^{32} ; and

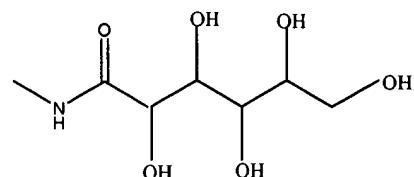
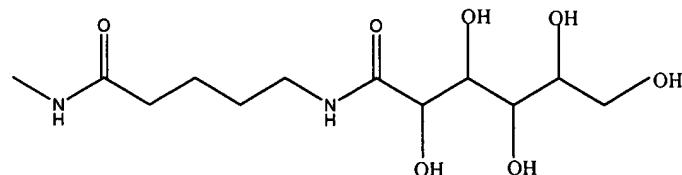
R^{31} is selected from the group consisting of hydrogen and alkyl.

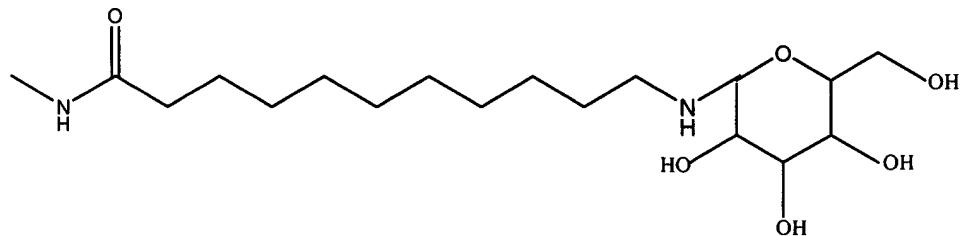
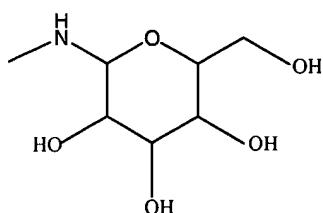
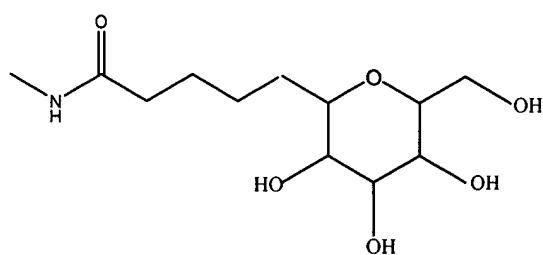
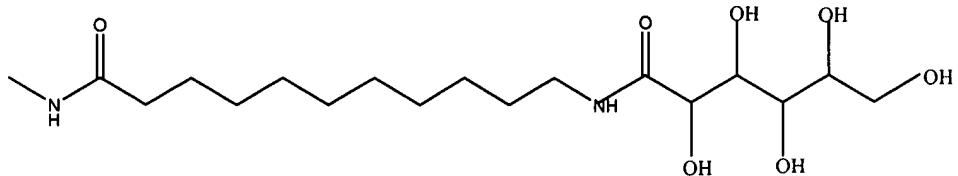
210. (original) A compound of claim 206 wherein:

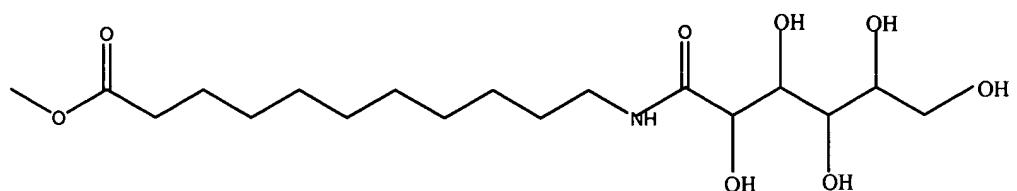
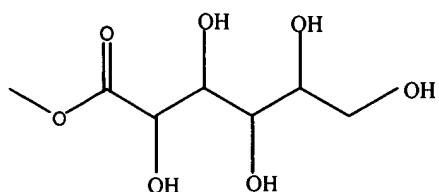
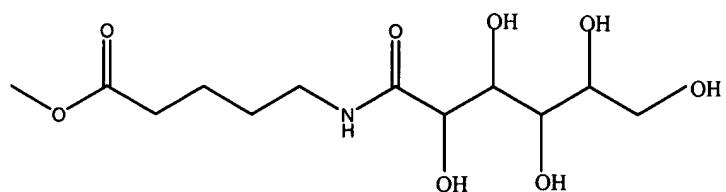
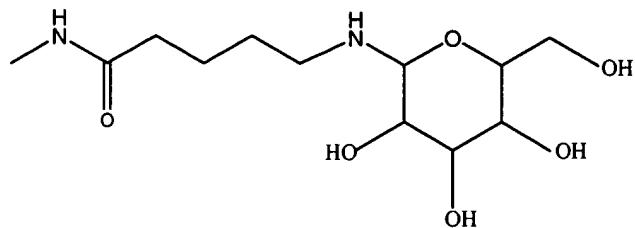
R^{30} is selected from the group consisting of hydrogen and alkyl; and

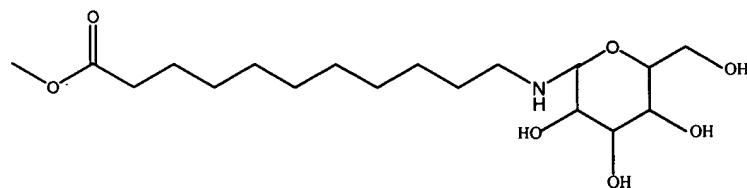
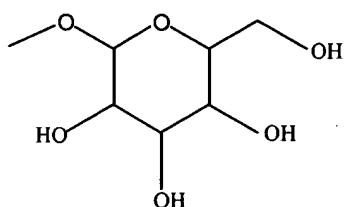
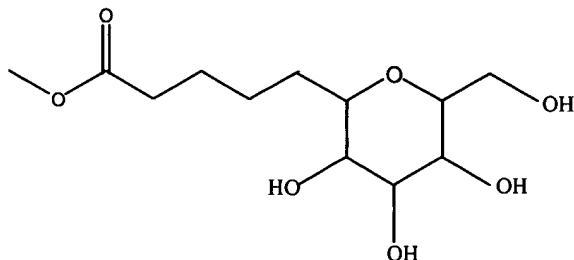
R^{31} is R^{32} .

211. (Currently Amended) A compound of claim 206 wherein R^{32} is phenyl substituted with a radical selected from the group consisting of:

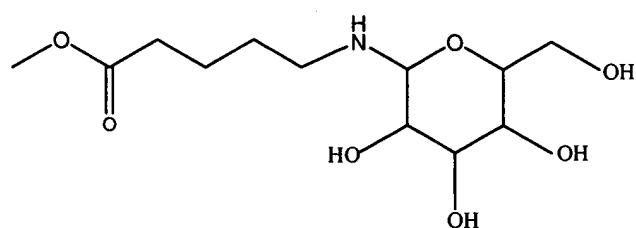








and



212. (original) A compound of claim 206 wherein:

i is 2;

R^{1C} and R^{1D} are independently selected from hydrogen and alkyl; and

R^{2G} and R^{2H} are independently selected from hydrogen and alkyl.

213. (original) A compound of claim 206 wherein:

i is 2;

R^{1C} and R^{1D} are hydrogen; and

R^{2G} and R^{2H} are independently selected from alkyl.

214. (original) A compound of claim 206 wherein:

i is 2;

R^{1C} and R^{1D} are hydrogen; and

R^{2G} and R^{2H} are independently selected from ethyl, propyl and butyl.

215. (original) A compound of claim 206 wherein i is 1 or 2.

216. (original) A compound of claim 206 wherein i is 2.

217. (original) A compound of claim 206 wherein R^{1C} and R^{1D} are hydrogen.

218. (original) A compound of claim 206 wherein R^{2G} and R^{2H} are independently selected from the group consisting of hydrogen and C_{1-6} alkyl.

219. (original) A compound of claim 206 wherein R^{2G} and R^{2H} are independently selected from the group consisting C_{1-6} alkyl.

220. (original) A compound of claim 206 wherein R^{2G} and R^{2H} are the same alkyl.

221. (original) A compound of claim 206 wherein R^{2G} and R^{2H} are each n-butyl.

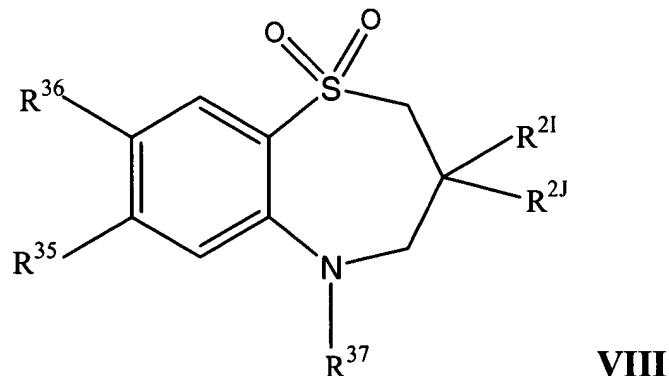
222. (original) A compound of claim 206 wherein one of R^{2G} and R^{2H} is ethyl and the other of R^{2G} and R^{2H} is n-butyl.

223. (original) A compound of claim 206 wherein one or more R³⁴ are independently selected from methoxy and dimethylamino.

224. (original) A compound of claim 206 wherein
i is 1 or 2;
R^{1C} and R^{1D} are hydrogen;
R^{2G} and R^{2H} are n-butyl; and
one or more R³⁴ are independently selected from methoxy and dimethylamino.

225. (original) A compound of claim 206 wherein
i is 1 or 2;
R^{1C} and R^{1D} are hydrogen;
one of R^{2G} and R^{2H} is ethyl and the other of R^{2G} and R^{2H} is n-butyl; and
one or more R³⁴ are independently selected from methoxy and dimethylamino.

226. (Previously amended) A compound of Formula VIII:



wherein:

R^{21} and R^{22} are independently selected from C_{1-6} alkyl; and

R^{35} is selected from the group consisting of halogen and R^{38} ;

R^{36} is selected from the group consisting of hydroxy, alkoxy, and R^{38} ;

wherein R^{38} is selected from the group consisting of cycloalkyl, aryl and heterocyclyl,

wherein said cycloalkyl, aryl and heterocyclyl are substituted with $-N(H)-X-R^{39}$ or $-O-X-R^{39}$ and

wherein:

X is selected from the group consisting of:

$-(C=O)_u$ -alkyl-;

$-(C=O)_u$ -alkyl-NH-;

$-(C=O)_u$ -alkyl-O-;

$-(C=O)_u$ -alkyl-($C=O$) v ; and

a covalent bond; and

R^{39} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides, wherein said monosaccharides, disaccharides, and polysaccharides may be protected with one or more sugar protecting groups; and

u and v are independently 0 or 1; and

R^{37} is unsubstituted phenyl or R^{38} ; or

a pharmaceutically acceptable salt or solvate thereof;

provided that at least one of R^{35} , R^{36} and R^{37} is R^{38} .

227. (original) A compound of Claim 226 wherein R^{38} is phenyl substituted with $-N(H)-X-R^{39}$ or $-O-X-R^{39}$ wherein:

X is selected from the group consisting of:

$-(C=O)_u$ -alkyl-;

$-(C=O)_u$ -alkyl-NH-;

$-(C=O)_u$ -alkyl-O-;

$-(C=O)_u$ -alkyl-($C=O$) v ; and

a covalent bond; and

R^{39} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and
u and v are independently 0 or 1.

228. (original) A compound of Claim 227 wherein R^{38} is phenyl substituted at the para-position with $-N(H)-X-R^{39}$ or $-O-X-R^{39}$ wherein:

X is selected from the group consisting of:

- $-(C=O)_u\text{-alkyl-};$
- $-(C=O)_u\text{-alkyl-NH-};$
- $-(C=O)_u\text{-alkyl-O-};$
- $-(C=O)_u\text{-alkyl-(C=O)}_v;$ and
- a covalent bond; and

R^{39} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and
u and v are independently 0 or 1.

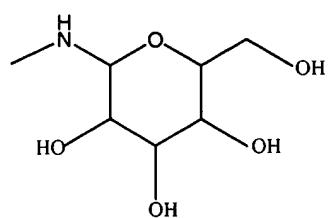
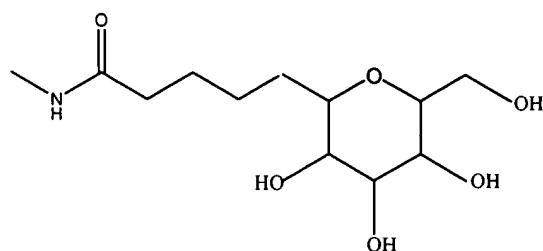
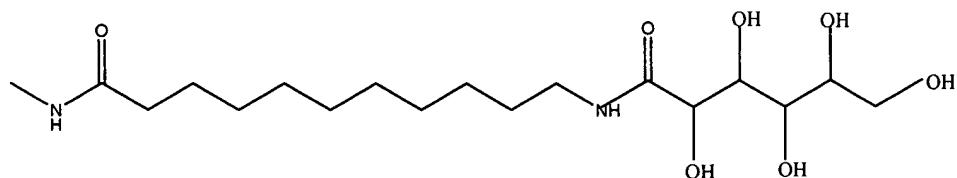
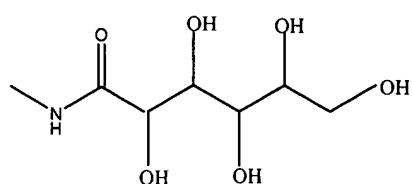
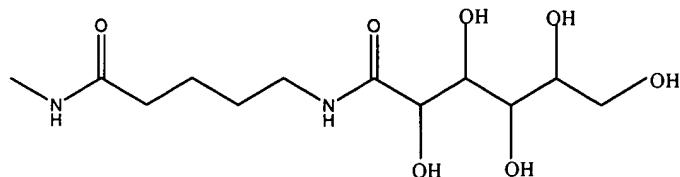
229. (original) A compound of Claim 227 wherein R^{38} is phenyl substituted at the meta-position with $-N(H)-X-R^{39}$ or $-O-X-R^{39}$ wherein:

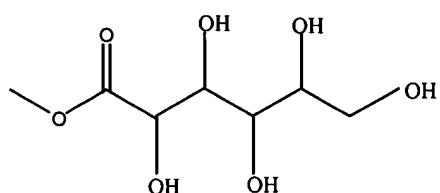
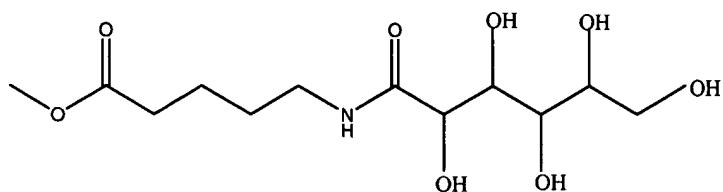
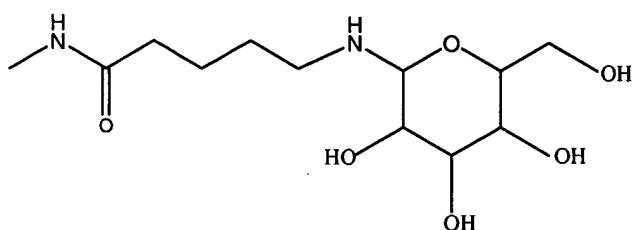
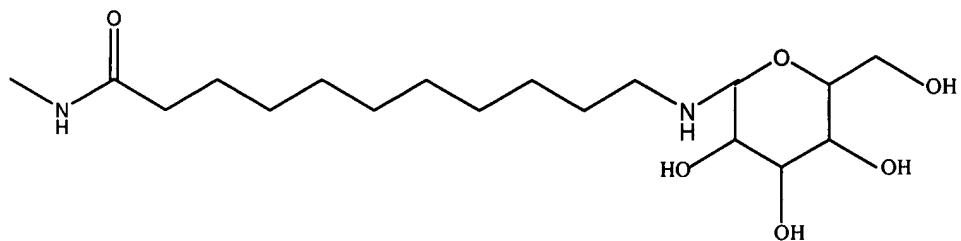
X is selected from the group consisting of:

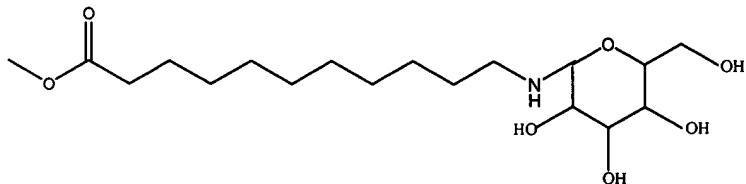
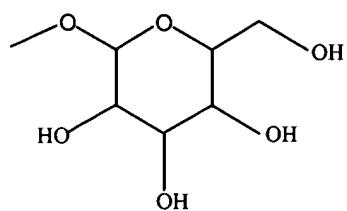
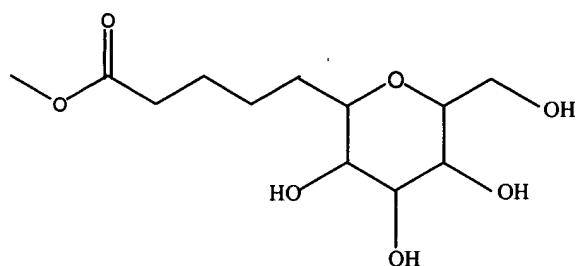
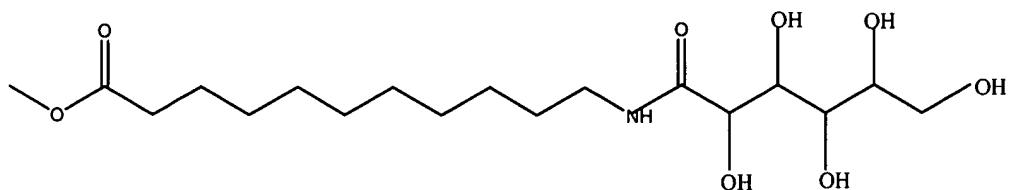
- $-(C=O)_u\text{-alkyl-};$
- $-(C=O)_u\text{-alkyl-NH-};$
- $-(C=O)_u\text{-alkyl-O-};$
- $-(C=O)_u\text{-alkyl-(C=O)}_v;$ and
- a covalent bond; and

R^{39} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and
u and v are independently 0 or 1.

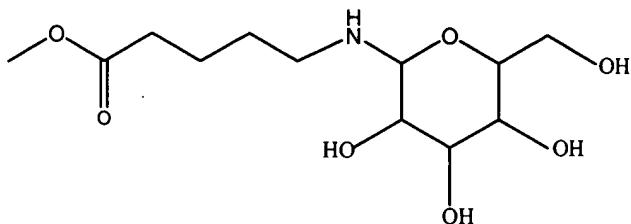
230. (Currently Amended) A compound of claim 227 wherein R³⁸ is phenyl substituted with a radical selected from the group consisting of:







and



231. (original) A compound of claim 227 wherein:
 R^{21} and R^{2J} are independently selected from ethyl and n-butyl;
 R^{35} is chloro; and
 R^{36} is selected from the group consisting of hydroxy and methoxy.

232. (original) A compound of claim 227 wherein:
 R^{21} and R^{2J} are n-butyl;
 R^{35} is chloro; and
 R^{36} is selected from the group consisting of hydroxy and methoxy.

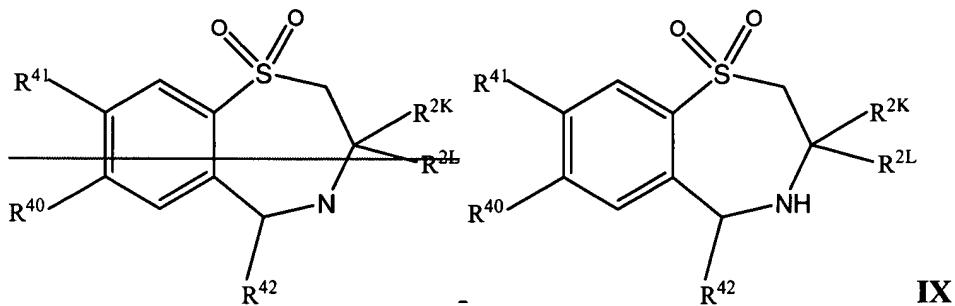
233. (original) A compound of claim 227 wherein:
one of R^{21} and R^{2J} is ethyl and the other of R^{21} and R^{2J} is n-butyl;
 R^{35} is chloro; and
 R^{36} is selected from the group consisting of hydroxy and methoxy.

234. (original) A compound of claim 227 wherein R^{21} and R^{2J} are the same alkyl.

235. (original) A compound of claim 227 wherein R^{21} and R^{2J} are each n-butyl.

236. (original) A compound of claim 227 wherein one of R^{21} and R^{2J} is ethyl and the other of R^{21} and R^{2J} is n-butyl.

237. (Currently Amended) A compound of Formula IX:



IX

wherein:

R^{2K} and R^{2L} are independently selected from C₁₋₆ alkyl; and

R⁴⁰ and R⁴¹ are independently selected from the group consisting of hydrogen, alkoxy, and R⁴³;

wherein R⁴³ is selected from the group consisting of cycloalkyl, aryl and heterocyclyl, wherein said cycloalkyl, aryl and heterocyclyl are substituted with -N(H)-X-R⁴⁴ or -O-X-R⁴⁴ and wherein:

X is selected from the group consisting of:

- (C=O)_a-alkyl-;
- (C=O)_a-alkyl-NH-;
- (C=O)_a-alkyl-O-;
- (C=O)_a-alkyl-(C=O)_b; and
- a covalent bond; and

R⁴⁴ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides, wherein said monosaccharides, disaccharides, and polysaccharides may be protected with one or more sugar protecting groups; and

a and b are independently 0 or 1; and

R⁴² is unsubstituted phenyl or R⁴³; or

a pharmaceutically acceptable salt or solvate thereof;

provided that at least one of R⁴⁰, R⁴¹ and R⁴² is R⁴³.

238. (original) A compound of Claim 237 wherein R⁴³ is phenyl substituted with -N(H)-X-R⁴⁴ or -O-X-R⁴⁴ wherein:

X is selected from the group consisting of:

- (C=O)_a-alkyl-;
- (C=O)_a-alkyl-NH-;
- (C=O)_a-alkyl-O-;
- (C=O)_a-alkyl-(C=O)_b; and
- a covalent bond; and

R⁴⁴ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

a and b are independently 0 or 1.

239. (original) A compound of Claim 238 wherein R⁴³ is phenyl substituted at the para-position with -N(H)-X-R⁴⁴ or -O-X-R⁴⁴ wherein:

X is selected from the group consisting of:

- (C=O)_a-alkyl-;
- (C=O)_a-alkyl-NH-;
- (C=O)_a-alkyl-O-;
- (C=O)_a-alkyl-(C=O)_b; and
- a covalent bond; and

R⁴⁴ is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

a and b are independently 0 or 1.

240. (original) A compound of Claim 238 wherein R⁴³ is phenyl substituted at the meta-position with -N(H)-X-R⁴⁴ or -O-X-R⁴⁴ wherein:

X is selected from the group consisting of:

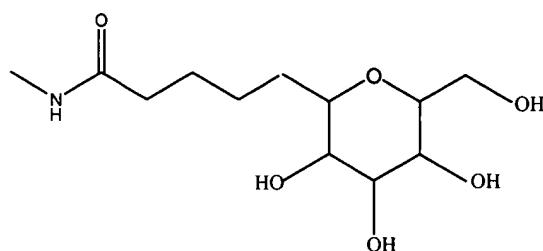
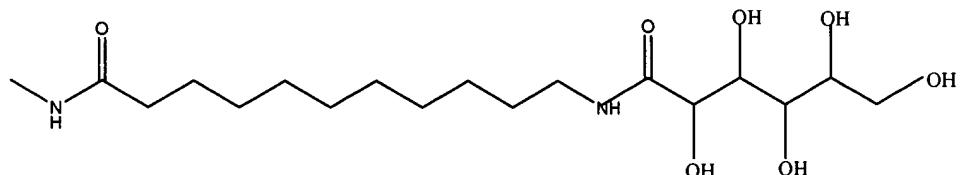
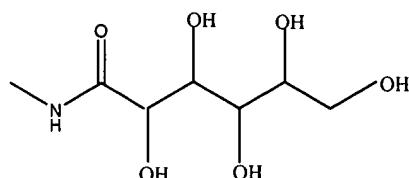
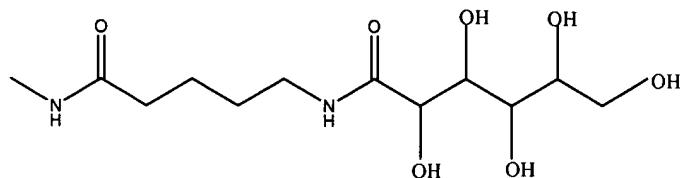
- (C=O)_a-alkyl-;
- (C=O)_a-alkyl-NH-;
- (C=O)_a-alkyl-O-;
- (C=O)_a-alkyl-(C=O)_b; and

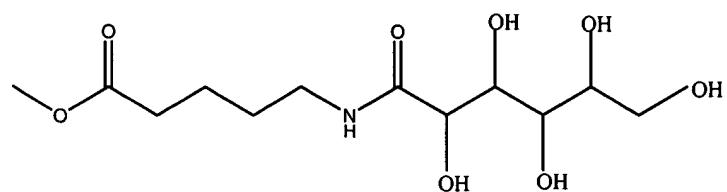
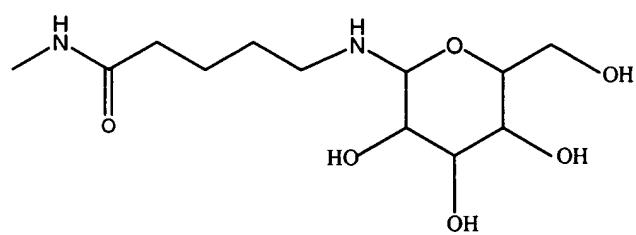
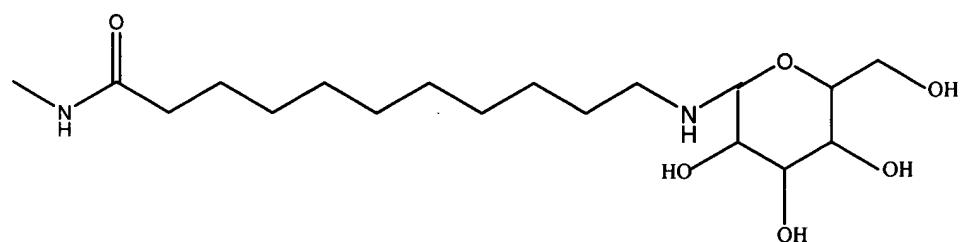
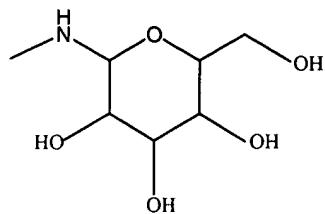
a covalent bond; and

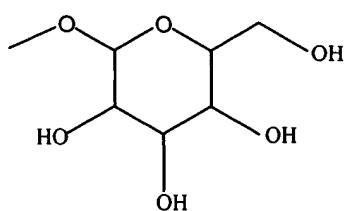
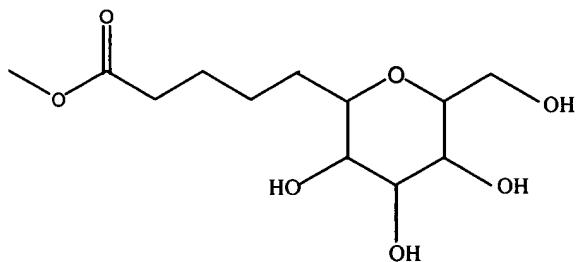
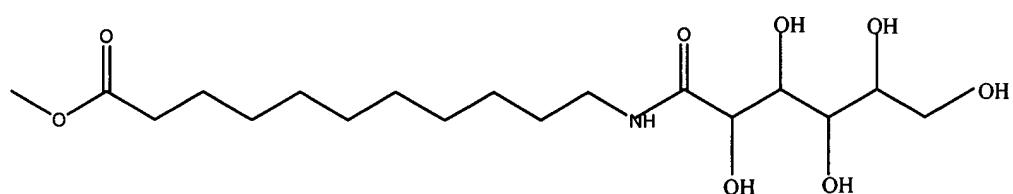
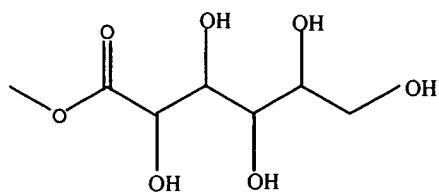
R^{44} is selected from selected from the group consisting of monosaccharides, disaccharides, and polysaccharides; and

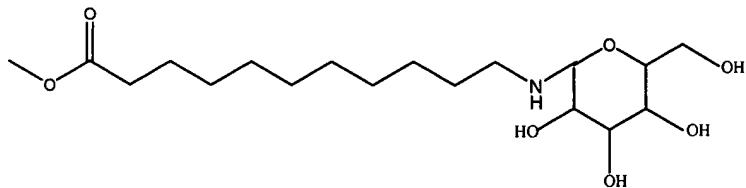
a and b are independently 0 or 1.

241. (Currently Amended) A compound of claim 238 wherein R^{43} is phenyl substituted with a radical selected from the group consisting of:

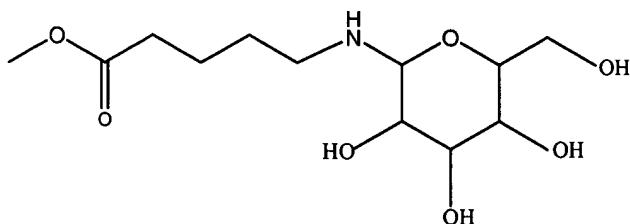








and



242. (original) A compound of claim 238 wherein:

R^{2K} and R^{2L} are independently selected from ethyl and n-butyl; and
 R^{40} and R^{41} are independently selected from hydrogen and methoxy.

243. (original) A compound of claim 238 wherein:

R^{2K} and R^{2L} are n-butyl; and
 R^{40} and R^{41} are independently selected from hydrogen and methoxy.

244. (original) A compound of claim 238 wherein:

one of R^{2K} and R^{2L} is ethyl and the other of R^{2K} and R^{2L} is n-butyl; and
 R^{40} and R^{41} are independently selected from hydrogen and methoxy.

245. (original) A compound of claim 238 wherein R^{2K} and R^{2L} are the same alkyl.

246. (original) A compound of claim 238 wherein R^{2K} and R^{2L} are each n-butyl.

247. (original) A compound of claim 238 wherein one of R^{2K} and R^{2L} is ethyl and the other of R^{2K} and R^{2L} is n-butyl.

248. (original) A compound of claim 238 wherein:
one of R^{2K} and R^{2L} is ethyl and the other of R^{2K} and R^{2L} is n-butyl; and
 R^{40} and R^{41} are hydrogen.

249. (original) A compound of claim 238 wherein:
one of R^{2K} and R^{2L} is ethyl and the other of R^{2K} and R^{2L} is n-butyl; and
 R^{40} and R^{41} are methoxy.

250. (Previously amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula I according to any one of claims 1 to 120, or a pharmaceutically acceptable salt or solvate thereof.

251. (Previously amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula III according to any one of claims 121 to 140, or a pharmaceutically acceptable salt or solvate thereof.

252. (Previously amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula V according to any one of claims 141 to 162, or a pharmaceutically acceptable salt or solvate thereof.

253. (Currently Amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a

compound of Formula VII according to any one of claims 167, 188, and 205 to 225, or a pharmaceutically acceptable salt or solvate thereof.

254. (Previously amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula VIII according to any one of claims 226 to 236, or a pharmaceutically acceptable salt or solvate thereof.

255. (Currently Amended) A method of treating a hyperlipidemic condition in a subject comprising administering to the subject a therapeutically effective amount of a compound of Formula IX according to any one of claims 237 to 249, or a pharmaceutically acceptable salt or solvate thereof.

256. (Currently Amended) The method of claim 250 wherein the hyperlipidemic condition is atherosclerosis.

257. (Previously amended) A pharmaceutical composition comprising a compound of Formula I according to any one of claims 1 to 120 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

258. (Previously amended) A pharmaceutical composition comprising a compound of Formula III according to any one of claims 121 to 140 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

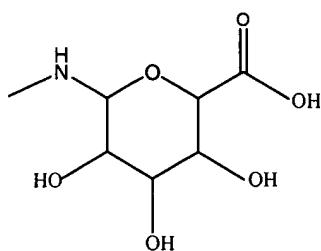
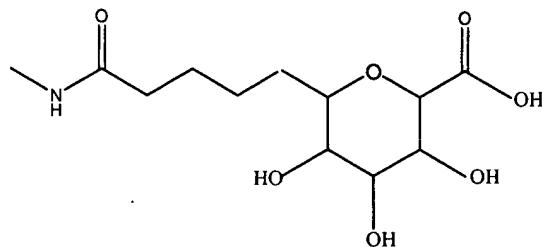
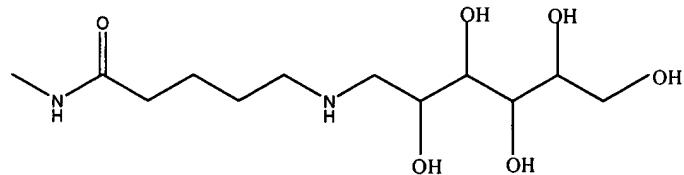
259. (Previously amended) A pharmaceutical composition comprising a compound of Formula V according to any one of claims 141 to 162 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

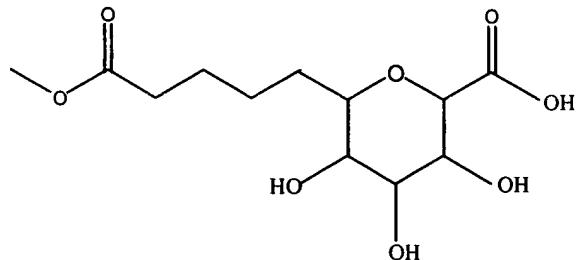
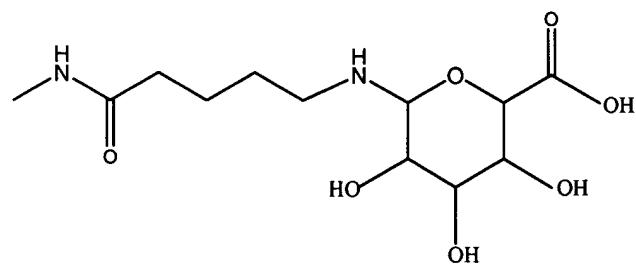
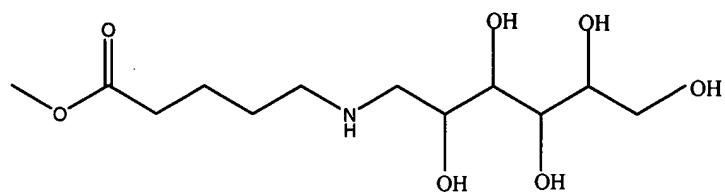
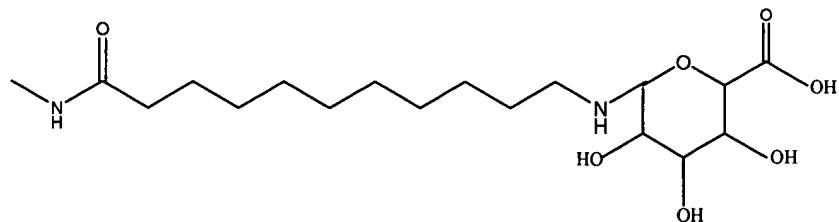
260. (Previously amended) A pharmaceutical composition comprising a compound of Formula VII according to any one of claims 167, 188, and 205 to 225 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

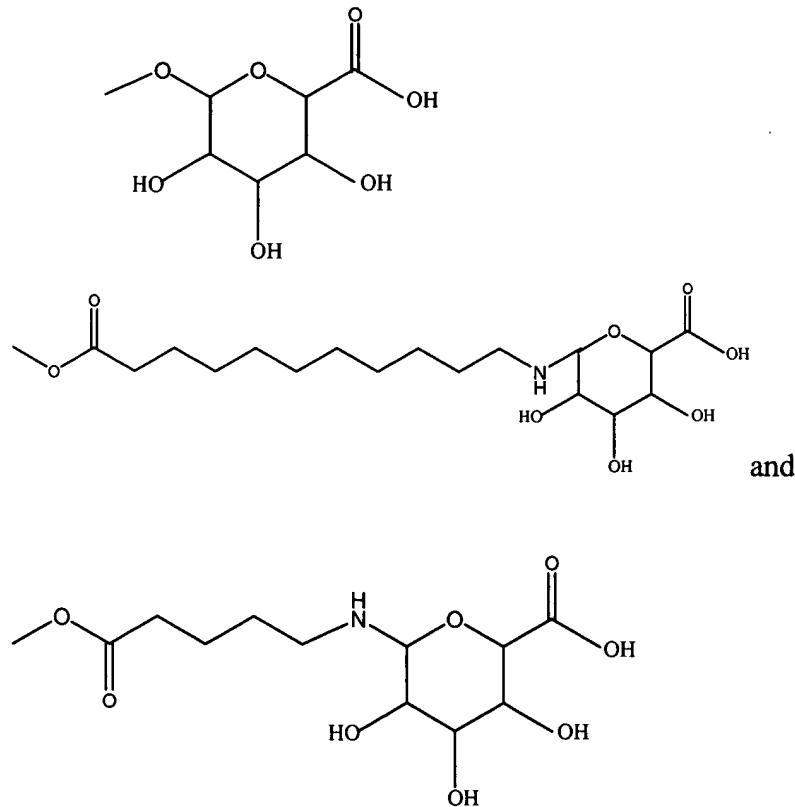
261. (Previously amended) A pharmaceutical composition comprising a compound of Formula VIII according to any one of claims 226 to 236 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

262. (Currently Amended) A pharmaceutical composition comprising a compound of Formula IX according to any one of claims 237 to 249 or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

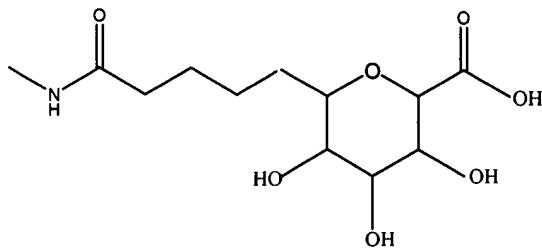
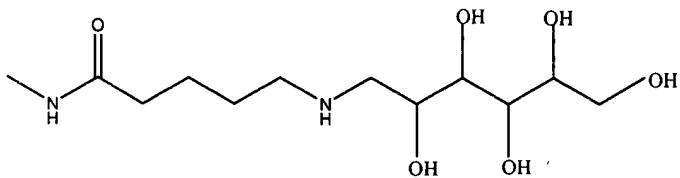
263. (New) A compound of claim 205 wherein at least one of R³⁰, R³¹, and R³⁴ is phenyl substituted with a radical selected from the group consisting of:

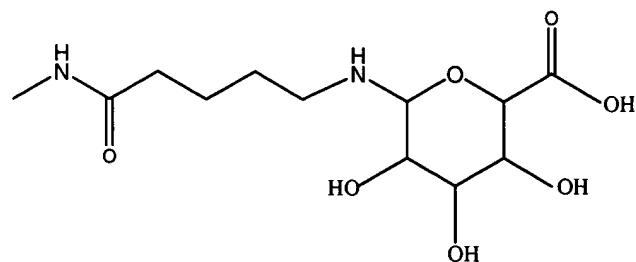
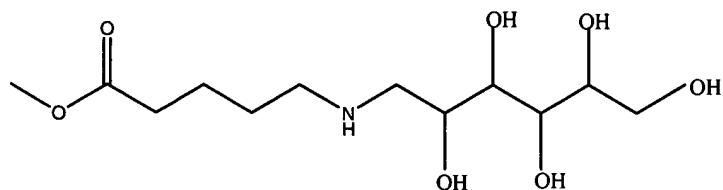
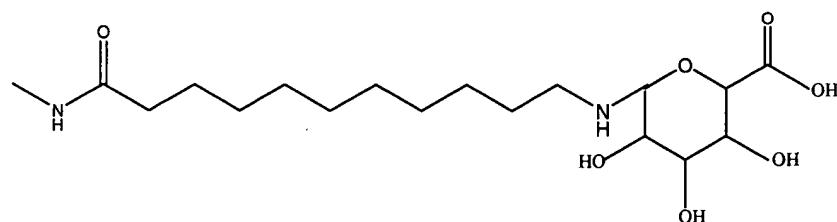
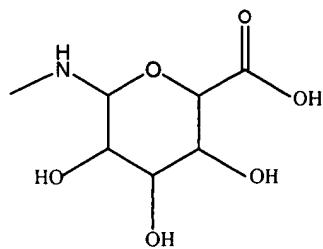


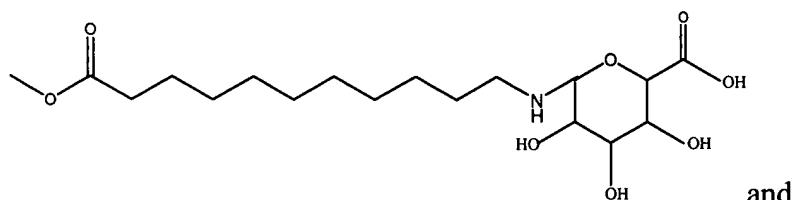
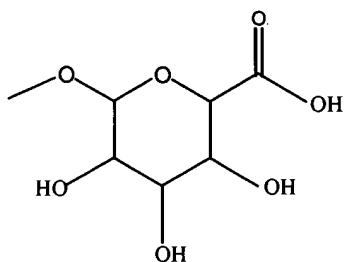
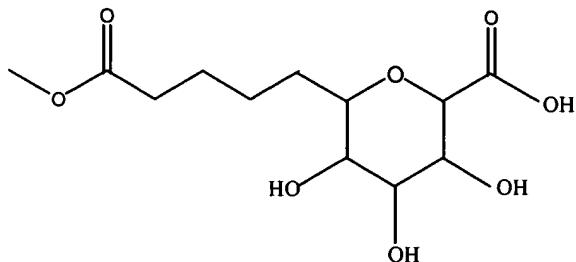




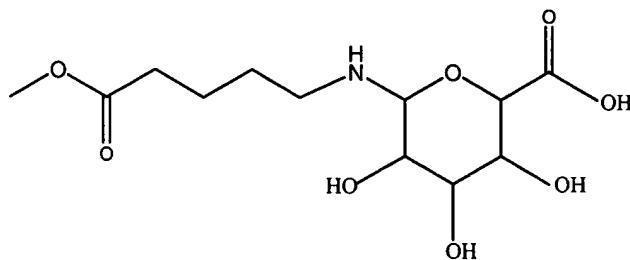
264. (New) A compound of claim 226 wherein at least one of R³⁰, R³¹, and R³⁴ is phenyl substituted with a radical selected from the group consisting of:







and



265. (New) A compound of claim 237 wherein at least one of R³⁰, R³¹, and R³⁴ is phenyl substituted with a radical selected from the group consisting of:

